Publisher

KU LEUVEN FACULTY OF ARCHITECTURE

Honourable Mention

UNISERVITATE AWARD 2022
Service-Learning Experiences in Catholic Higher Education

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2023

This book offers an account of how, from 2017 until 2020, the KU Leuven Faculty of Architecture research group Altering Practices for Urban Inclusion (Alt_Shift*) engaged end-users, civil society organisation, students, researchers and practitioners in collective learning and Networked Critical Spatial Practices through the transformation of several teaching initiatives into service-learning courses.

Starting from the realization that 'traditional spatial practices' often fail to recognize the complex and unequal relations between people living in cities and that ideas, Alt_Shift* aims to explore the agency of altering the ways of practice in the real world. The research group recognizes that lived experiences of people at the margins of society provide important insights into institutional failure and social exclusion in urban projects. By setting up academic research in the context of collaborative learning and combining outreach-based community work and interdisciplinary network practices, the research group generates new knowledge and innovative socio-spatial inclusive design approaches.

In this book we are describing on how the Alt_Shift* Community-engaged Architectural Design Learning courses became platforms for collaboration and laboratories for reflection-in-action, reflection-through-action, and reflection-on-action. Moreover, we are discussing how, as a result, a Quadrupple Helix Mode of Innovation was activated, Mode 2 and Mode 3 Knowledge Production was fostered, and Design as Politics was engaged.

Community Engaged Architectural Design Learning

Aurelie De Smet & Burak Pak

Community Engaged Architectural Design Learning

The Case of Altering Practices for Urban Inclusion

Authors & Editors:
Burak Pak
Aurelie De Smet

Co-editing & Graphic Design
Vitor Breder

KU Leuven
Faculty of Architecture
International Masters Students

Alt_Shift* Research Group:
Altering Practices for Urban Inclusion

ALT_SHIFT*

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Alt_Shift* Research Group:
Altering Practices for Urban Inclusion

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Introducing this work

This book finds its origins in the service-learning efforts that were started up by Prof. Burak Pak and dr. Aurelie De Smet, at the KU Leuven Faculty of Architecture in 2016, in the context of the Solidary Mobile Housing (SMH) project (see more on page 29).

Besides empowering homeless citizens, by involving them directly and indirectly in the entire research and co-creation of their own housing community, the purpose of these efforts was also to enable all the SMH project participants to engage in collective learning and Networked Critical Spatial Practices. In this way we aimed at activating a Quadrupple Helix Mode of Innovation (van Winden & de Carvalho, 2015; Cavallini et al., 2016), foster Mode 2 (Gibbons et al., 1994; Latour, 2011) and Mode 3 (Yawson, 2009; Carayannis & Campbell, 2012) Knowledge Production, and engage Design as Politics (Kemmis and McTaggart, 2005); Paidakaki et al. 2018; Miessen 2010, 2017; Fry, 2009). To realise these aims, the Altering Practices for Urban Inclusion (Alt_Shift*) research group, set-up and managed by Prof. Pak, transformed several courses at the KU Leuven Faculty of Architecture into platforms for collaboration and laboratories for reflection-in-action, reflection-through-action, and reflection-on-action (Schön 1983, 1987; Gregory & Heiselt, 2014).

From 2016 on this venture quickly expanded, as over the next years many complementary initiatives were taken. This included, for example, our application and selection for participation in the official Service-learning Track, offered by the University. Which resulted in the establishment of the first two official service-learning electives at our faculty and the official re-framing of an existing Master's Dissertation Studio course, to fit the service-learning approach. Furthermore, it also led to the first 'service-learning PhD' at our University, a study on 'Increasing socio-spatial resilience through temporary appropriation of urban waiting spaces for housing' by Aurelie De Smet, supervised by Prof. dr. Burak Pak and Prof. dr. Yves Schoonjans. Furthermore, other similar **PhDs are currently under development.**

This all also amounted in the publication of several conference papers, book chapters, books and other publications oriented towards the professional field and the broader public, presenting and discussing the 'Community-engaged Architectural Design Learning' approach developed by the Alt_Shift* research group. Last but not least our efforts also recently amounted in the granting a UNISERVITATE Western Europe North Region Special Mention Award for one of the Altering Practices for Urban Inclusion Elective Courses for which we are very grateful.

We couldn't have done this alone. Just like this book, all these accomplishments mentioned above were the result of joint efforts by many, many people working along with us. From the bottom of our hearts, we want to thank all the involved actors for their contributions. >

Burak Pak & Aurelie De Smet,
August, 2022

Formal-Informal Interface: Addressing the seen and the unseen in the design process of transforming contemporary collective spaces in urban contexts.

Asyia Sadiq
2018 - 2022

The commons architect.e: altering urban architectural design in Brussels

Hanne Van Reusel
2015 - 2019

Building Knowledge Commons for Commons Architecture

Hulya Ertas
2019 - 2023

Architecture Design Justice

Rosaura Romero
2019 - 2023

Rethinking Circular Architectural Design as a Participatory and Inclusive Practice

Vitor Breder
2022 - present

In a recently published UNESCO report on the future of education, **[1]** *they call for a "New Social Contract for Education" that is grounded in human rights, social justice and the principles of reciprocity and solidarity. For this we need "pedagogies that help us to learn in and with the world and improve it." The educational approach called Service-learning is precisely this: a solidarity-based experiential learning strategy that transforms not only students themselves but also the communities in and with whom they engage.*

The Architectural Design Service-learning courses facilitated by the Alt_Shift Research Group create a context for students to rethink spatial design for and with socially vulnerable groups. By actively involving people at the margins of society in the (re) design process, not just as clients but as experts by experience, it encourages them to (re)find the strength to take control of their own spaces and lives. As for students, the real-world practice challenges them to reflect on their social role and responsibility, both as architects and citizens, and on their agency in social change processes.*

As such, in teaching spatial design as an act of solidarity, the Alt_Shift Research Group is re-imagining not just socio-spatial practice but the very future of education itself. Their research and educational approach are an example and appeal to higher education to promote student learning in and with the world and foster future generations of architects as designers of and for social change.*

Sara Vantournhout
August, 2022

1. UNESCO, 2021. International Commission on the Futures of Education, Reimagining our futures together: A new social contract for education. ISBN: 978-92-3-100478-0

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^ Employees of SAAMO Brussel

^ Employees and former employees of Centrum voor Algemeen Welzijnswerk

^ Brussels citizens, SMH inhabitants

[Teodora Stefanova | Sanja Djurdjevic | Loes Decruynaere | Mónica Cardoso Maëlle Vandenbergh | Josephine Jordan | Botond Bölöni | Mindaugas Glodenis Vina Lestari | Niyati Mannari | Athina Moraiti | Omar Kashmiry | András Márton Eduardo Teran | Julie Charlot | Hedieh Ghaem | Nangula Shilongo | Boryana Vladislavova | Artemisia Zafrakopoulou | Char Chau | Deniz Gürel Ioanna Dimaki | Irati Alvaro Zabla | Kadir Uyar | Lo Kuang-Liang Melissa Jin | Nerea Garcia Berriozabal | Omer Ozdikici | Oscar Farré Valenti | PatriciaMarco StanRezucha | Marwane Zarouri | Cihat Baluken | Filip Ruszowski Viviana Rea Doricic | Pareli Akelian | Yousuf Abu Naman Al Ansari | Julita Borys Madeleine Debaere | Seyedehava Dehghanimohammadabadi Mahdi Ghotbi Patrik Hilber | Tina Kazem Soltani | Katja Lorencic | Moujan Mahdian Amirreza Mohabbat | Isinsu Tazici | Lou Vanderhaegen | Vitor Silveira Breder Rocha Sara Alaieshahmiri | Wiliam Pauwels | Madalena Claessens | Albina Iberdemaj | Zeliha Öztürk | Mahishini Vasudevan | Iliya Yazdani Esfahani | Khatereh Zarei Malekabadi]

v Students of KU Leuven Faculty of Architecture

[Yves Schoonjans, Rosie Romero, Ken de Cooman] - [Sara Vantournhout]

v Professors, researchers and guest lecturers of the KU Leuven Faculty of Architecture

v KU Leuven Engage & KU Leuven Service-Learning Department

| ABBREVIATIONS |

Alt_Shift* - Altering Practices for Urban Inclusion (research group name)

CEADL - Community-engaged Architectural Design Learning

PAR - Participatory Action Research

SL - Service-learning

SMH - Solidary Mobile Housing

TD - Transition Design

WBX - WoonBox

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ALT_SHIFT*

Alt_Shift* Research Group

01

Integrating social and political domains, the **Altering Practices for Urban Inclusion (Alt_Shift*)** research group re-frames spatial practice as diverse forms of civic-situated knowledge creation *in and through* design. Employing a multitude of inclusive methods and actions for facilitating design empowerment, the group aims at engaging in co-creation with citizens, other practitioners, NGOs, social and technological developers, as well as governmental organizations. In this context, Alt_Shift* applies unique participatory design and co-creation methods and tools to learn from under-represented and overlooked communities and empower them to get involved in design, through design.

Alt_Shift* Research Group

01

[Fig. 1] *Depiction of inequality.*
Source: Jon Tyson - unsplash.com

| CONTEXT |

The political rationality of our times, namely neo-liberalism, triggered a plethora of social, political, financial and ecological crises. The recent COVID-19 (Coronavirus) epidemic accompanied by an economic crisis and the "Black Lives Matter" protests revealed the structural forms of discrimination and inequality on the global scale. According to a recent brief by the United Nations,[1] at this moment in time, we are experiencing the amplification of the inequalities within and across countries which are pushing individuals and families into poverty.

Our contemporary society desperately needs measures that put people at the centre of response, to enable recovery which can lead to better, more equitable and resilient outcomes for all. In this context, there is also a demand for alternative approaches to how our cities are made.

Against this background, **Alt_Shift*** aims to explore the agency of altering[2] the ways of practice in the real world. **Altering** practices are those which seek to question and transform the socio-political conditions of the spaces into which they intervene, as well as to test the boundaries and procedures of their own disciplines.[3] Altering Practices aim to go beyond the *world-as-it-is* and extend towards *the-world-as-it-can-be*, from *somehow* to *otherhow*, imagining how our cities and spaces can be made and become otherwise.

Integrating social and political domains, Alt_Shift* reframes spatial **practice** as diverse forms of civic-situated knowledge creation in-and-through design. Employing a multitude of inclusive methods and actions for facilitating design empowerment, these frequently involve co-creation with citizens, other practitioners, NGOs, social and technological developers, as well as governmental organizations.

The research group focuses on **urban** altering practices which are situated at different frontiers, including the spatial, the social, the virtual, the natural, the ephemeral and transitional, the political, the networks, the "knowledge(s)", the transdisciplinary... The research group acts in the situated urban contexts and agglomerations of Brussels, Istanbul, Antwerp, New York, Cambodia, ...

Traditional spatial practices often fail to recognize the complex and unequal relations between people living in cities. Ideas and lived experiences of people at the margins of society provide important insights into institutional failure and social exclusion in urban projects. By setting up academic research in the context of collaborative learning processes, and combining outreach-based community and interdisciplinary network practice, the research group generates new knowledge and innovative socio-spatial **inclusive** design approaches to address these challenges.

1. UN, 2020.
2. Petrescu, 2018.
3. Rendel, 2003.

Recently, numerous scholars, intellectuals, activists and politicians have made calls for a "New Social Deal" or a "Green New Deal" as a means to inclusively address the needs of all citizens while pursuing long-term sustainability goals. These calls demand an equitable approach to the creation, distribution and sustenance of shared social, spatial and economic resources and propose an alternative relationship with the natural environment. Responsible and ethical urban policies are central to the emergent ideas of a "New Deal". The supporters of this model propose that the governments and the civil society should step into a new role to address social and spatial inequalities and promote sustainable modes of living while making use of the existing resources more efficiently and effectively.

Across the globe and particularly in Brussels, decades of neoliberal policies resulted in the commodification and marketization of the housing sector. While a parade of governments failed to provide decent accommodation to the citizens, the constitutionally guaranteed "right to housing" has gradually evaporated into a mirage which is strived for but never reached. Added on top of this, the financial crisis of 2008 and the refugee influx in the last decade gave rise to an increasing number of vulnerable citizens in need of affordable housing.

There is a clear need for the development and testing of smarter/more inclusive policies and urban strategies enabling novel architectural solutions for the creation of affordable housing together with an equitable use of the urban Waiting Spaces.

[Fig. 2] *Belgian Housing Action Day 2022 - 27 March, 2022. © Chloé Thôme*
Source: https://www.facebook.com/belgianhousingactionday/posts/pfbid02fRMAwK77QKLdpKECUFGC3S56ooTbiMtqRjSZU4raBTfQCry2sseyq4X8A2cWwYM4l

| WHO |

Burak's research covers an interdisciplinary area between architecture and urban design, participation and digital spatial media. The two main and complementary focus points are exploring and enabling bottom-up participation {in} and {through} reflexive research and design practices. His research focuses on enabling inclusion in and through design. Co-creation and co-design play a central role in the research projects he participates in through which he aims to integrate social design practices, education and research. Examples of the research projects he is involved in are: "Networked Practices for Placemaking" (EC Co-create), "Co-creating & Building Solidary Housing for Homeless" (INNOVIRIS Co-create) and "Incubators of Public Spaces" (JPI-Urban Europe).

Burak Pak (Ankara, 1977) is Professor of Architectural Collaborative Design, Collective Spaces and Digital Media at KU Leuven Faculty of Architecture. He holds a PhD from ITU Faculty of Architecture.

Research areas: Collaborative Spatial Design, Co-creation, Participatory Design, Inclusive Design Technologies and Media.

After working as an independent architect for several years, Aurelie enrolled as a PhD researcher at the KU Leuven Faculty of Architecture. Aurelie's current research focusses on participation, bottom-up urban initiatives, architectural co-creation and socio-spatial resilience and empowerment. Previously, Aurelie also worked at the Department of Landscape Architecture of the Erasmus University College Brussels, where she led the Centre of Expertise 'tuin+'. exploring the 'gardenscape' (the accumulation of the variety of semi-public, semi-private and private open and green spaces) on a theoretical and spatial level.

In general, Aurelie is fascinated by the influence people have on their environment and vice versa. The interaction between 'theory' and 'practice' is a common thread in her work, as she finds it essential to relate her findings to the real, everyday world.

Aurelie De Smet (Ghent, 1980) graduated in Architecture at the Hogeschool voor W&K, Sint-Lucas Gent and in Spatial Planning at the University of Ghent. She holds a PhD from KU Leuven Faculty of Architecture.

Research areas: tactical urban planning, temporary use of waiting spaces, housing as a verb, community-engaged architectural design learning

Rosie Romero (El Salvador ,1990). Graduated in Architecture (Urban Projects and Urban Cultures) at the University of KU Leuven Brussels, Belgium and Judson University in Chicago.

Research areas: Networked practices, Autonomous practices, Decentralized organizations, Spatial agency, Co-creative designs.

Rosie worked at Mayfield Architects in California, and currently, she is Co-founder, and leading project manager at OURB; An urban planning collective with the mission to build city networks, to find connections and patterns to build a strong evolutionary analysis of the urban fabric. To turn challenges into possibilities and open up opportunities for smart collaborations for co-creative designing and development of the city.

Vitor Breder (Brazil, 1990). Graduated in Architecture & Urbanism at Universidade Federal do Ceará - Fortaleza. MSc of Architecture at KU Leuven Brussels, Belgium.

Research areas: Autonomous practices, Participatory Circular Design; Flexibility in Architecture; Affordable Housing

Across his carrier, Vitor built collaborations in a variety of fields - film making, arts, community leadership, non-profit institutions. Through his contribution to several local and international architecture practices, he gained experience in competitions and in projects of artistic, landscape and architectural nature. He believes in the power of Sustainable and Participatory Design as a tool for human development on any scale.

He is currently an FWO Strategic Basic Research Fellow, conducting a PhD at KU Leuven Faculty of Engineering and Technology.

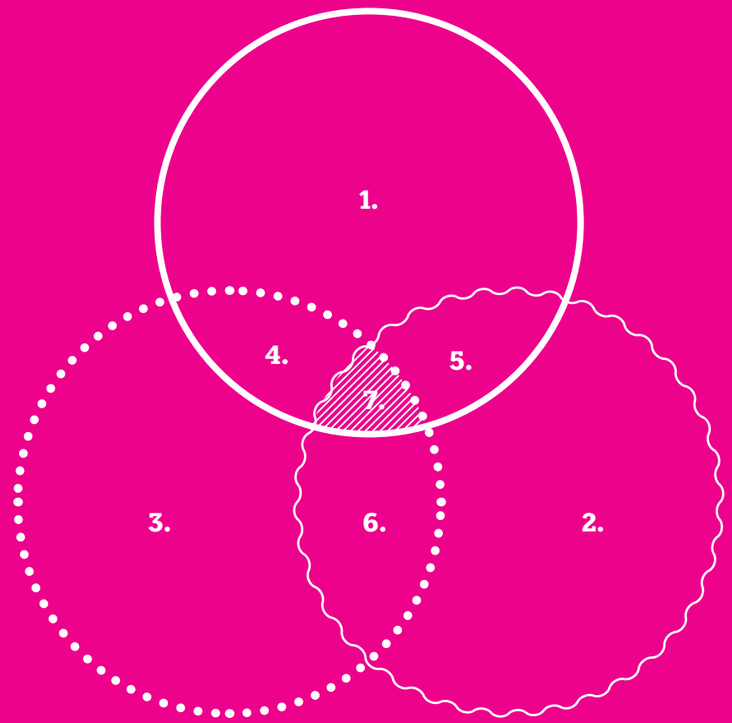
Alt_Shift* has several other collaborators from different fields of expertise and research areas that can be reached via:

https://altshift.brussels/

or:

Community-engaged Architectural Design Learning

02



1. Civic Engagement
2. Academic Study
3. Practical Experience
4. Volunteering
5. Civic Education
6. Internship
7. **Service-learning**

[Fig. 3] ***SL General Scheme***
Source: KU Leuven Service-learning, 2021 adapted by Vitor Breder.

Service-learning (SL) is an experiential learning method that allows students to meaningfully engage in and together with the community as part of their credit-bearing coursework. Inspired by John Dewey's (1963) experiential education and Paulo Freire's (1998) critical pedagogy, known as *'educação popular'*, SL requires students to critically reflect upon their praxis with the aim of developing an emerging critical consciousness of self, other and world. Therefore, SL involves a circular process, including serving (or community engagement), reflecting on the experiences gained through this and learning from it to take the next step.

Community-engaged Architectural Design Learning

02

[Fig. 4] *Service-Learning at SMH neighbourhood integration elective - 2020.*
Source: Alt_Shift* Archive

| SERVICE-LEARNING IN ARCHITECTURAL EDUCATION |

Today, there seems to be a growing understanding that learning to design, amongst others, involves practising how to address today's 'wicked'[4] societal, environmental, and economic problems. In this context, Salama[5] notes how alternative approaches to architectural pedagogy from the 1960s and 1970s are today being 'resurrected and reinvigorated.' As a result, a variety of terms - such as *community-based design learning, design-build, and live projects* - is used today to refer to a diversity of SL forms/approaches in architectural education. Although these all have a slightly different focus, they also have a lot of commonalities and are often used interchangeably. [6]

At KU Leuven, SL has been institutionalized since 2016. For this purpose, a central SL office was created in order to facilitate SL courses, to support both faculty members and students in community-engaged teaching and learning practices, and to build reciprocal and sustainable campus-community partnerships.

SL can take on many forms [Fig. 5]. It is important to note that each of these SL experiences is worth the same, as long as they are done based on the SL principles [Fig. 6].

From a pedagogical point ot view, the ultimate aim of SL is to equip the practitioners of the future, with the necessary skills to face current and future challenges. Therefore SL includes several growth aims in different realms:

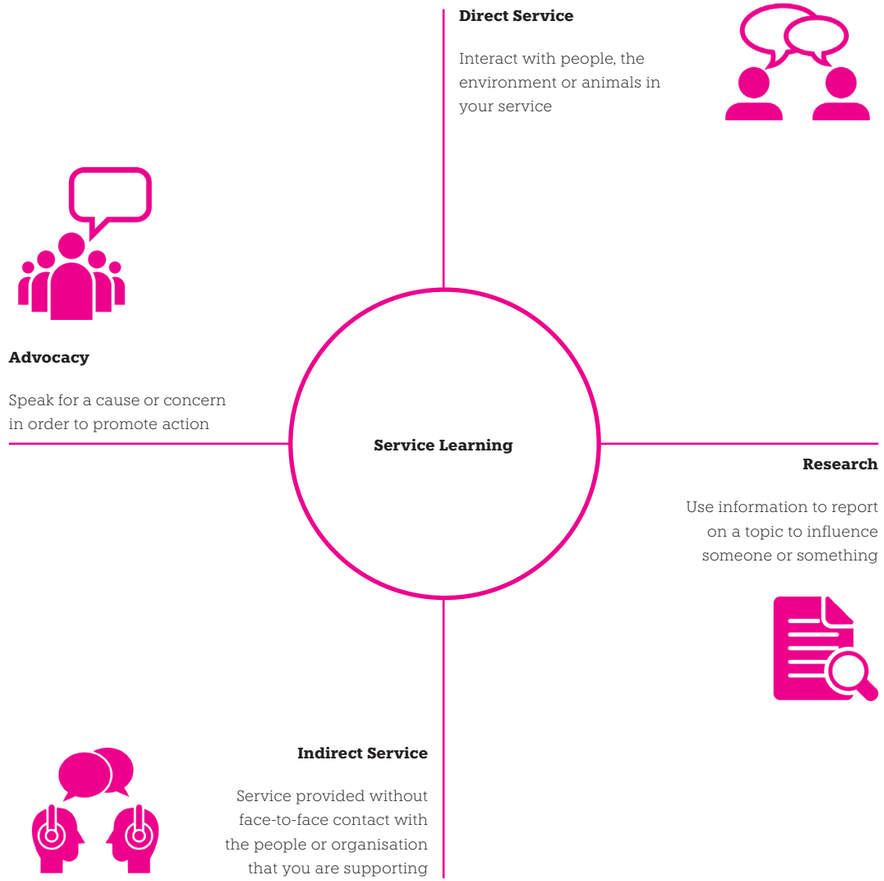
Academic:
The aim is that, through reflection, students would learn to make connections between the experience they gain during the community engagement and the theoretical frameworks or concepts introduced in the context of the course. By confronting and connecting these with each other, they can come to a deeper and/or wider understanding;

Civic:
The aim is that students would gain more insight into their role as a citizen in society, as well as into social structures, diversity and the functioning of factors such as power and privileges;

Personal:
The aim is that students would learn more about themselves, about who they are as a person and as a professional, about what values and beliefs and what prejudices and stereotypes they have;

Professional:
The aim is that students would gain insight into their role(s) as professionals and develop professional skills, such as communication, teamwork, leadership, etc.

4. Wicked problems are tough to manage because of their combined social and technical complexity (Camillus, 2008)
5. Salama, 2015
6. Idem [5]


Direct Service
Interact with people, the environment or animals in your service
Advocacy
Speak for a cause or concern in order to promote action
Service Learning
Research
Use information to report on a topic to influence someone or something
Indirect Service
Service provided without face-to-face contact with the people or organisation that you are supporting

[Fig. 5] *Forms of Service-Learning*
Source: Lake and Jones, 2012; Kaye, 2010.

Reciprocity

Meaning that the work should be relevant to both the student and the partner(s);

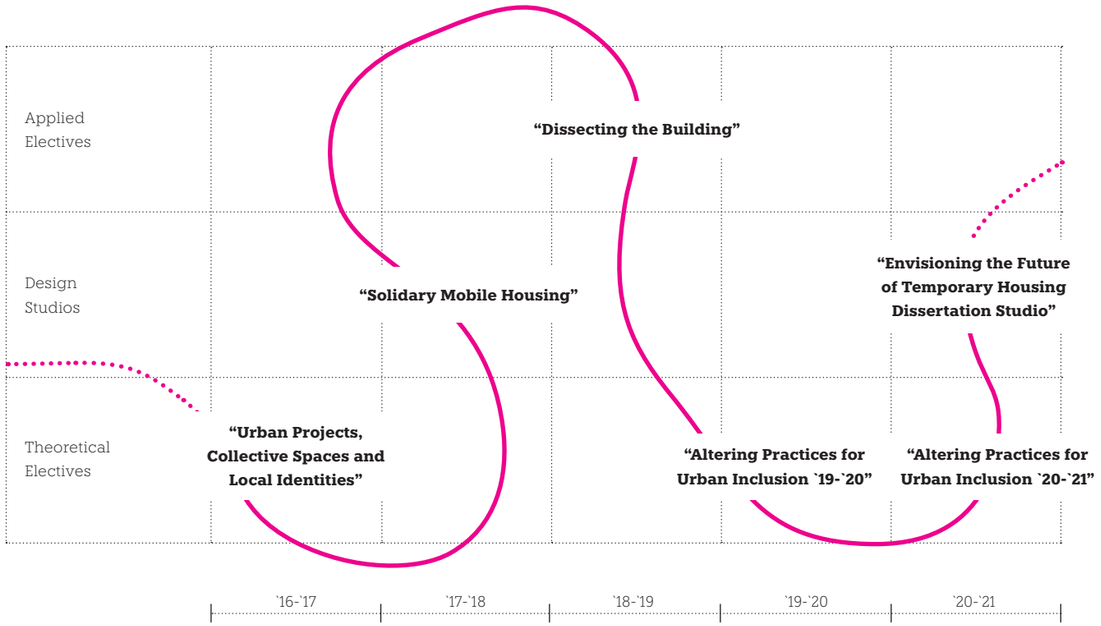
Horizontal Solidarity

Meaning that all the participants should work together as partners co-creating solutions together and learning from each other;

Social Impact

Meaning that the proposed project should be aimed at realising sustainable change.

[Fig. 6] *Service-Learning Principles*
Source: KU Leuven Service-learning, 2021



[Fig. 7] *Schematic representation of the meandering SMH CEADL courses.*
Source: De Smet, 2022.

| HOW ALT_SHIFT* APPLIES SERVICE-LEARNING

The Alt_Shift* research group developed a specific form of SL, called **'Community-engaged Architectural Design Learning' (CEADL)**. This approach is combining experiential learning with outreach-based community work and critical spatial practice, with the aim of catalysing co-creation and enabling trans-disciplinary and cross-sectoral collaboration of a variety of partners and stakeholders in the group's urban *Living Lab* projects.

From 2017 until 2020, Alt_Shift*'s CEADL approach was developed as a fluid concept, meandering through different subjects and academic years with the aim of creating collaborative learning and experimentation environments by (temporarily) re-framing a variety of 'traditional' courses into 'service-learning' courses. Since 2020 the group has moreover established three 'official' SL courses at the KU Leuven Faculty of Architecture. See [page 49].

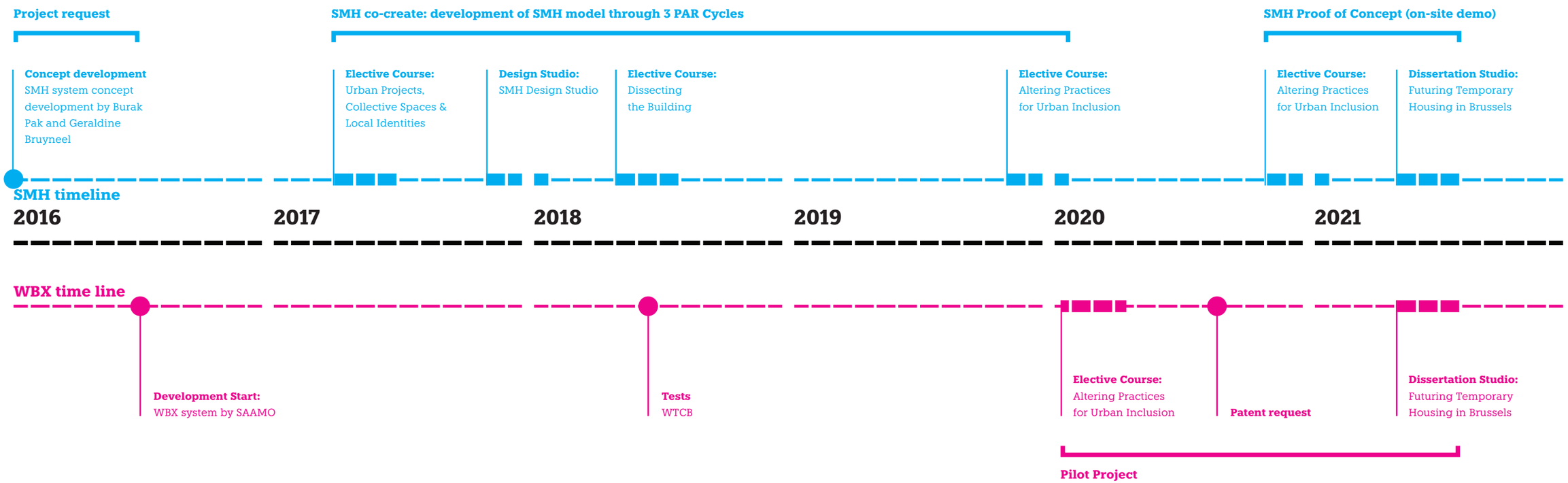
Through participation in a CEADL course, students (temporarily) become full fledge partners in the research groups' **Participatory Action Research (PAR)** projects. As such, they were either involved in the co-creation of direct input to these projects, together with the other project partners or in a collective reflection on the broader topics, outcomes and processes Alt_Shift* and its societal partners are dealing with.

CEADL is thus employed by the Alt_Shift* research group to enable community-engaged, collaborative research and design, address community-identified needs, validate community knowledge, and contribute to social change,[7] while at the same time training the involved students to become competent professionals aware of their social role.

Over the past five years, seven CEADL courses have already been organised at the KU Leuven Faculty of Architecture, involving over 64 students.

7. Strand et al., 2003

[Fig. 8] *2 pictures of Julie at WTC discussing the SMH architectural design details with the other SMH partners.*
Source: Alt_Shift* Archive

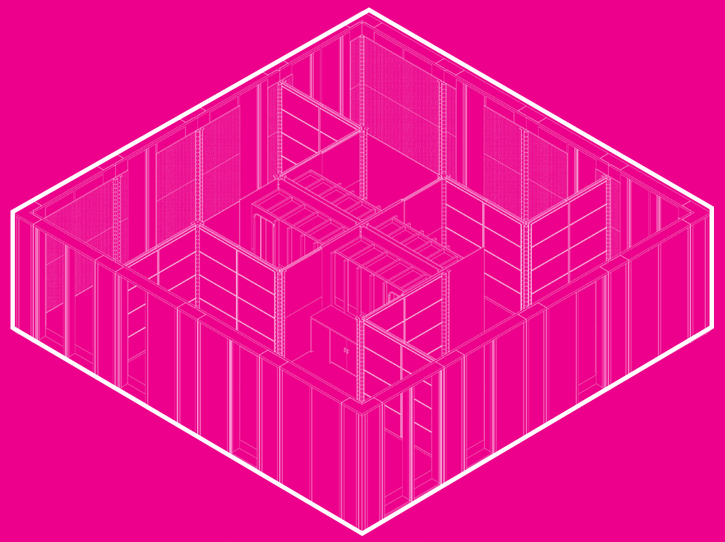


[Fig. 9] *Time line situating all the Alt_Shift* CEADL courses of the past years.*
Source: De smet, 2022. Adapted by Vitor Breder.

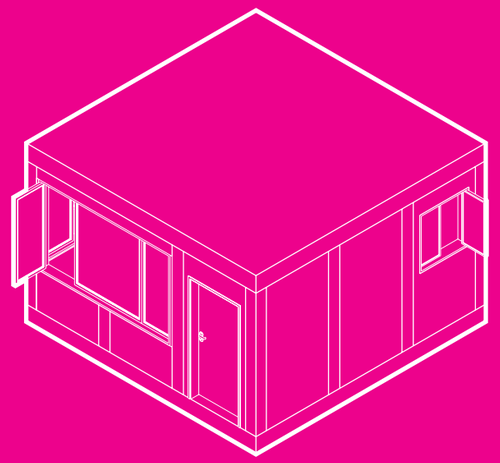
Solidary Mobile Housing & WoonBox

03

Solidary Mobile Housing (SMH)



WoonBox



'The current affordable housing crisis in Brussels has led to various experiments with alternative approaches, which are questioning the current housing typologies and production methods. Amongst other things, the focus is on collective, small-scale, modular and/or mobile living and on greater participation of the end user in the conception, realisation, and management of their own home. A number of these projects indeed also focus on the activation of underused potential through the temporary use of vacant buildings or vacant lots. Two such initiatives are the **Solidary Mobile Housing (SMH)** and **WoonBox (WBX)** Projects.

Solidary Mobile Housing & WoonBox

03

[Fig. 10] *Schaerbeek, Brussels - April, 2022. "Landlord breaks everything to evict his tenants". Front anti-expulsions / Front tegen uithuiszettingen.* Source: *https://www.facebook.com/photo/?fbid=6640891882471 19&set=pcb.664092034913501*

In Brussels, the number of people being homeless and/or living in a situation of housing exclusion has more than doubled over the past ten years (+ 142,2 %).[8] As a result of the enormous shortage of affordable housing (currently, more than 44.000 households are on the waiting list for social housing), today many vulnerable people end up in the lowest segment of the private rental sector, where they are facing major challenges, such as high rents, rising energy costs, substandard living quality and uncertain leases.

At the same time, a plethora of land and spaces owned by the government and private owners remains dormant and unused. The Brussels civil society movement 'St-Vide-Leegbeek'[9] identified a total amount of 6,8 m2 of vacant spaces in the region. See [Fig. 12].

As a reaction to this situation, various experiments using these spaces for accommodating the Brusellites in innovative ways have arisen. Two such projects are **Solidary Mobile Housing (SMH)** and **WoonBox (WBX)**, both the result of a close collaboration between the non-profit association *SAAMO Brussel* and the KU Leuven Faculty of Architecture. In both projects, along the way, also several other social, government and private partners joined the team.

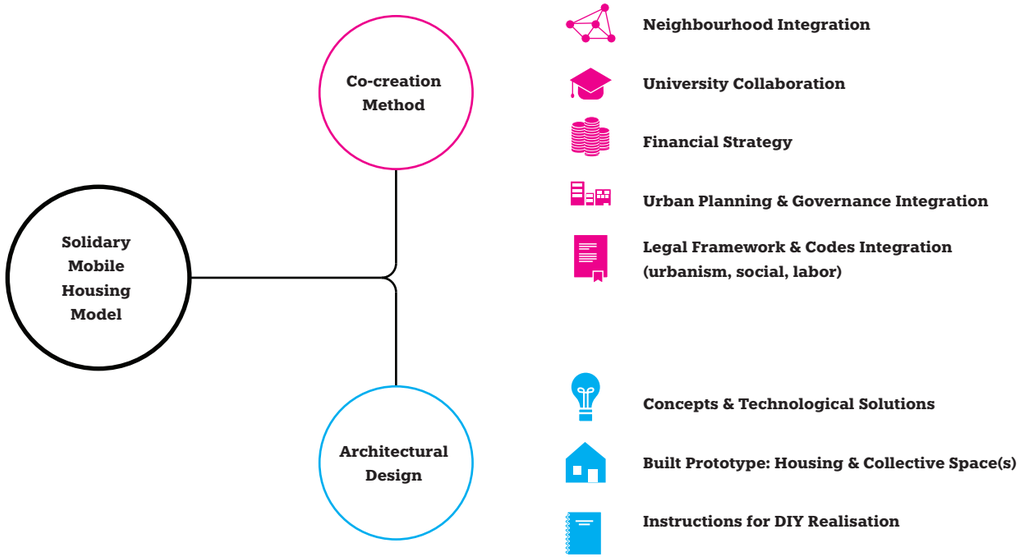
With the SMH and WBX projects, the Alt_Shift* research group aims at exploring *IF* and *HOW*, through solidary appropriation of urban Waiting Spaces for housing, spatial developments in the Brussels-Capital Region can be made more resilient and democracy in the housing sector can be improved.

8. Quittelier & Bertrand, 2018
9. St-Vide-Leegbeek, 2022.

[Fig. 11] *Brussels Waiting Space - Circularium*
Source: Vitor Breder

[Fig. 12] *Brussels Waiting Space - Tour & Taxis*
Source: Alt_Shift* Archive

[Fig. 13] *SMH Model*
Source: De smet, 2022. Adapted by Vitor Breder.



[Fig. 14] *Co-construction in the Solidary Mobile Housing Living Lab*
Source: Geraldine Bruyneel

[Fig. 15] *Co-construction in the Solidary Mobile Housing Living Lab*
Source: Tineke Van Heesvelde.

| SMH |

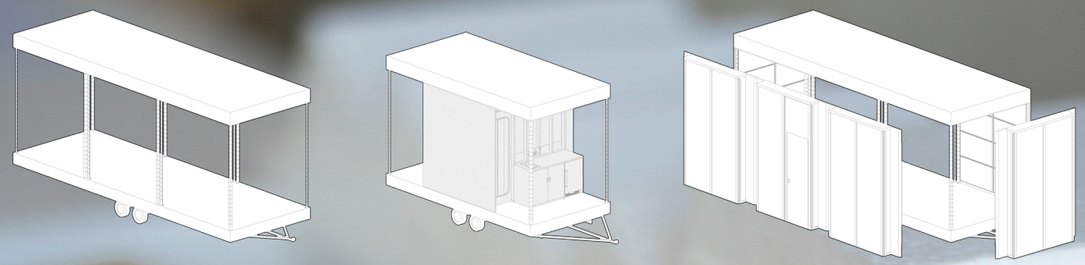
Solidary Mobile Housing (SMH) is a cross-sectoral and trans-disciplinary Living Lab, focussing on the development, testing, and refining of a model for the co-creation of solidarity-based housing communities on urban Waiting Spaces. The SMH Model [Fig. 13] not only aims at realizing affordable, mobile, and modular homes but also at co-creation with end users, in this case, homeless people. Another important aspect of the project is neighbourhood integration. The aim of SMH is to generate meaningful spaces that can help strengthen social inclusion and citizenship.

The SMH Model and Prototype were developed by *SAAMO Brussel, CAW Brussel* and the *KU Leuven Faculty of Architecture*, in close collaboration with eight houseless men from the Brussels-Capital Region. For this, financial support was, amongst others, received from *Innoviris*, the *VGC* and the Housing Department of the *Brussels-Capital Region*. Moreover, the project partners also closely collaborated with various Brussels professionals such as *BC architects and studies, Casablanco* and *Atelier Groot Eiland*.

On the one hand, the SMH model includes a co-creation process, which includes social guidance, skill building, service learning, neighbourhood integration, and legal, financial, and urban planning strategies.

On the other hand, it also includes an architectural design prototype, consisting of mobile, multifunctional and technical, modules to be finished with interchangeable facade panels and a flexible system for interior walls, with which residential and other spaces can be quickly realized on vacant sites.

Currently, a pilot project is being built on an urban Waiting Space in Jette. This first SMH community consists of eight homes and a collective space and semi-private garden, which will be used to stimulate 'togetherness' amongst the inhabitants and interaction with the neighbourhood.



Multifunctional Unit

Trailer 2.5m x 7.5m

Technical Unit

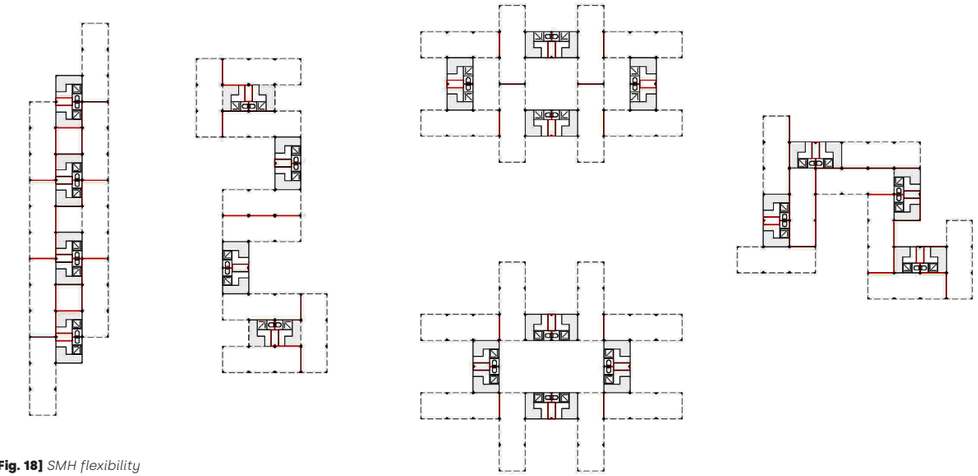
Trailer 2.5m x 5m

1 per 2 housing units

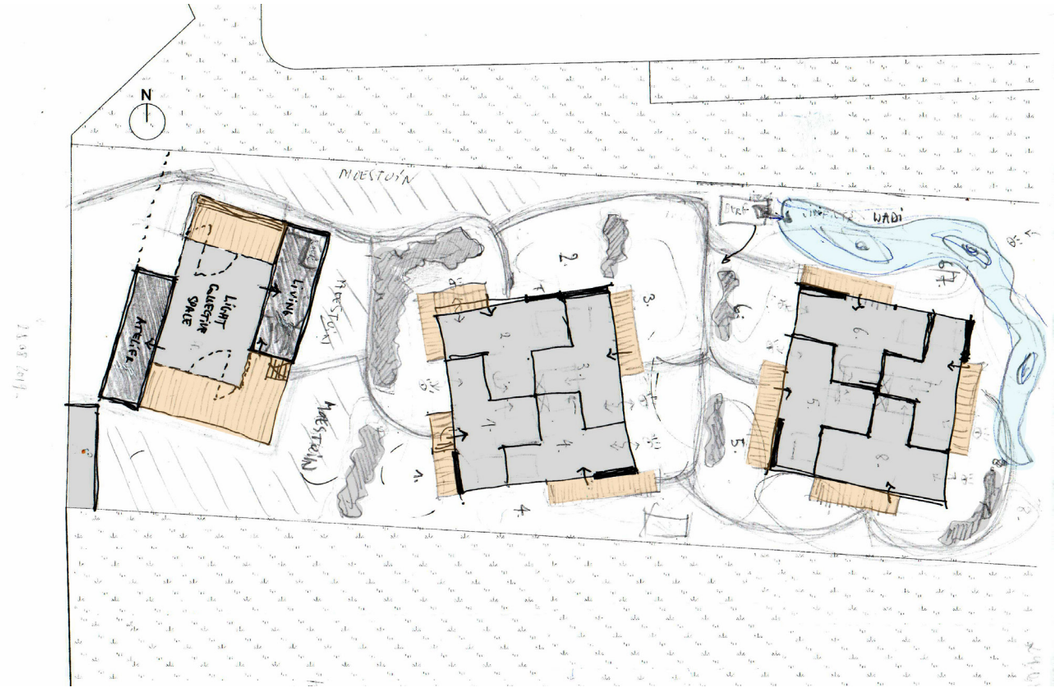
Façade Panels and interior walls

[Fig. 16] *SMH unit types*
Source: Alt_Shift* Archive

[Fig. 17] *SMH Physical Model*
Source: Alt_Shift* Archive



[Fig. 18] *SMH flexibility*
Source: Alt_Shift* Archive



[Fig. 19] *SMH Pilot project sketch Implantation*
Source: Alt_Shift* Archive

[Fig. 20] *SMH Pilot project at Jette exterior view*
Source: Alt_Shift* Archive

[Fig. 21] *SMH Pilot project at Jette interior view*
Source: Alt_Shift* Archive

| WBX |

The **WoonBox (WBX)** project originated from SAAMO's search for a way to be able to 'take along' the investments made to alleviate the housing crisis by temporarily housing vulnerable people in vacant building. The main goal of this system is thus to create temporary habitable spaces in vacant buildings in a simple and affordable way. By grouping different units, the project also aims to create a group dynamic between the residents.

WBX is based on a modular construction system, INSTA'BOX, consisting of wall, floor, and ceiling elements, developed by *SAAMO Brussel* and *Vandereyt Houtskeletbouw*.

Also in the context of WBX, a pilot project was realized from Fall 2020 until Spring 2022 (with financial support from the *Koning Boudewijnstichting*, the *Brussels-Capital Region*, the *MolenWest* neighbourhood contract, and the *Flemish Community*) in a vacant building in Molenbeek. The design for this project, which consists of ten housing units, was designed in collaboration with students and teachers from the KU Leuven Faculty of Architecture. Moreover, a second pilot is currently under construction, in which one of the students is still involved, first as a job student and later as an external contributor.

The residents are assigned by *CAW Brussel*, *Aprèstoe vzw* and *Groep INTRO*, who are also be responsible for their guidance. *Borduur Collectief* has accompanied the residents in the gradual appropriation of the communal areas.

[Fig. 22] *Workshop realized with the residents of Woonbox to decide upon the collective spaces of the temporary occupation.*
Source: SAAMO Archive.

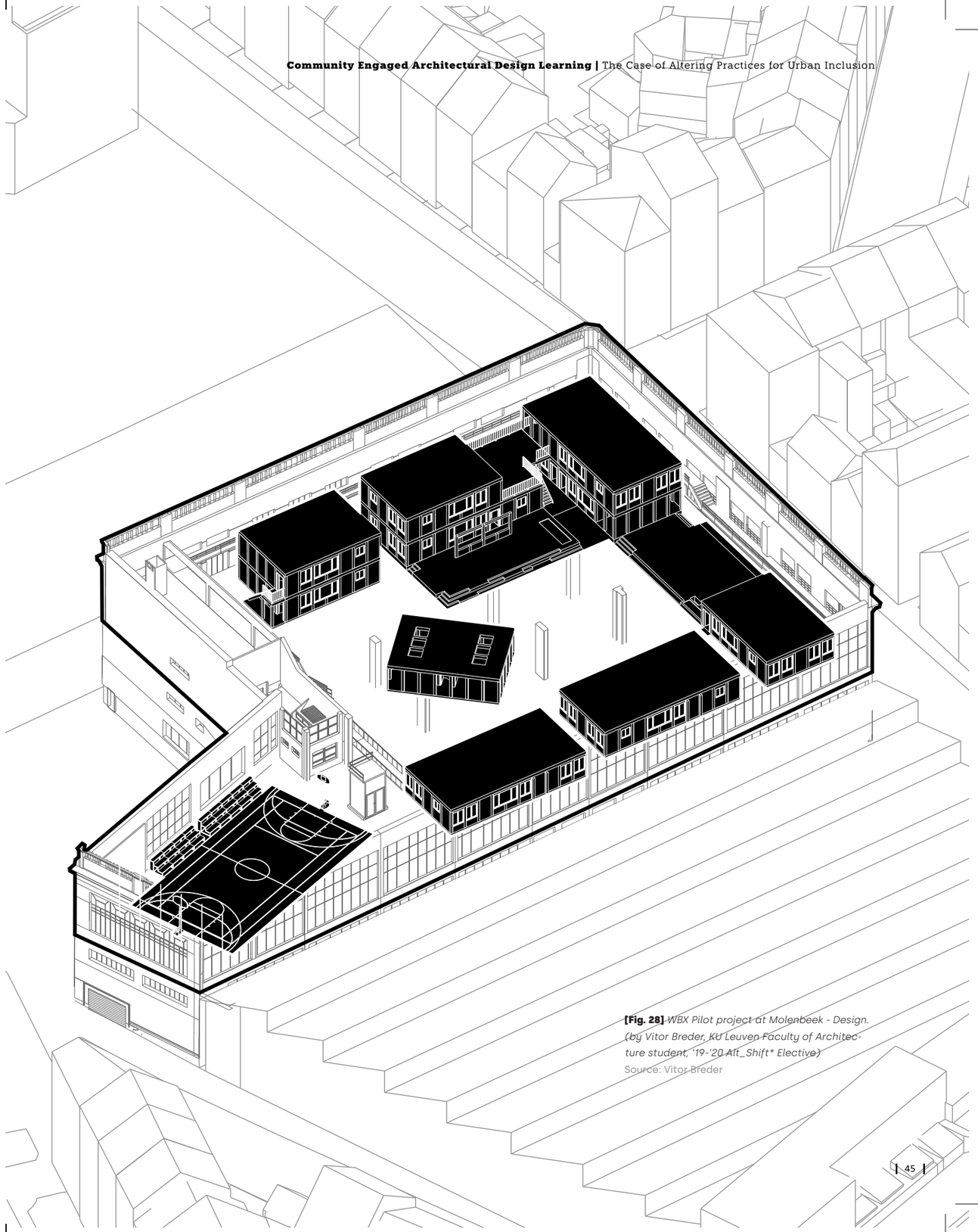
[Fig. 23] *WBX Pilot project at Molenbeek - House units.*
Source: Vitor Breder

[Fig. 24] *WBX Pilot project at Molenbeek construction site*
Source: Vitor Breder

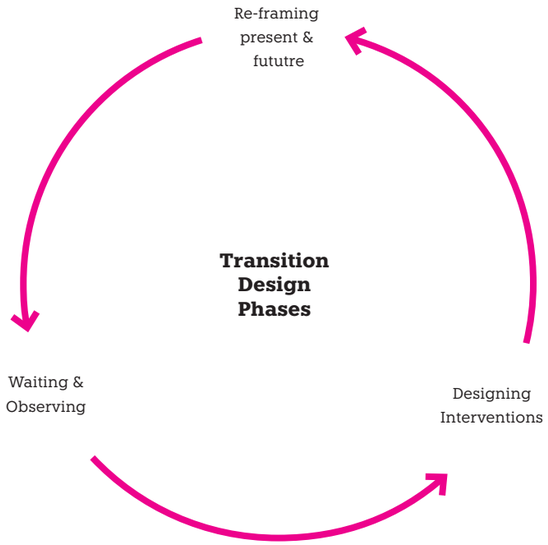
[Fig. 25] *WBX Pilot project at Molenbeek first residents*
Source: SAAMO Brussel.

[Fig. 26] *WBX Pilot project at Molenbeek - render images*
Source: Vitor Breder.

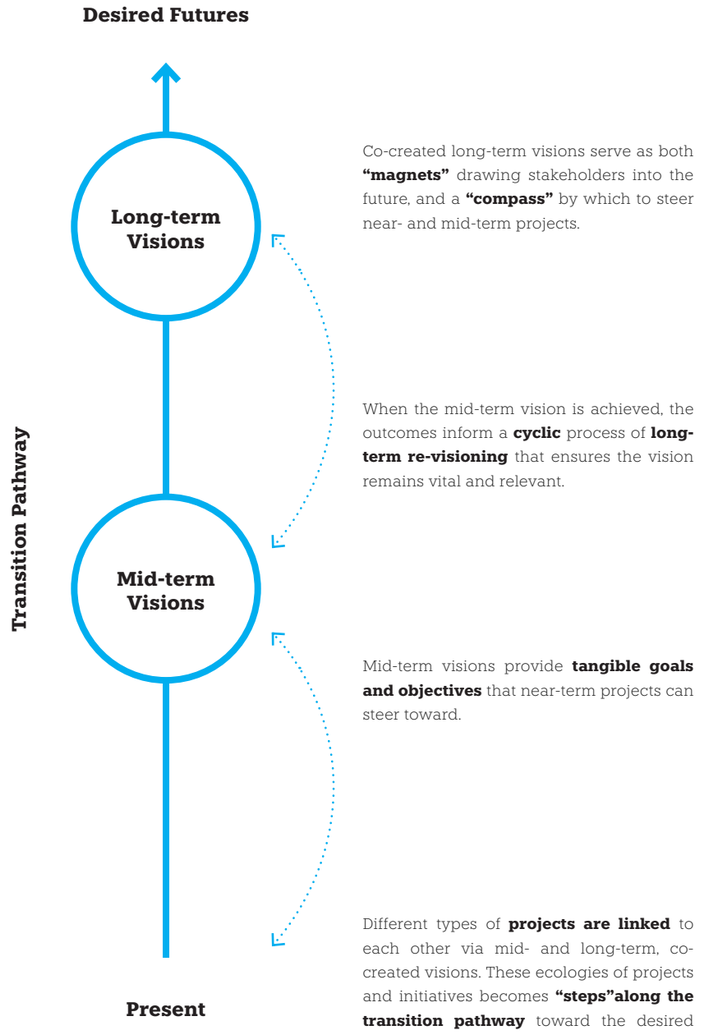
[Fig. 27] *WBX Pilot project at Molenbeek - end of construction site*
Source: Vitor Breder.



[Fig. 28] *WBX Pilot project at Molenbeek - Design. (by Vitor Breder, KU Leuven Faculty of Architecture student, '19-'20 Alt_Shift* Elective)*
Source: Vitor Breder



[Fig. 29] *Transition Design Phases Approach*
Source: Irwin et al. (2015) adapted by Vitor Breder



[Fig. 30] *Transition Design Phases*
Source: Irwin et al. (2015) adapted by Vitor Breder

Co-created long-term visions serve as both **"magnets"** drawing stakeholders into the future, and a **"compass"** by which to steer near- and mid-term projects.

When the mid-term vision is achieved, the outcomes inform a **cyclic** process of **long-term re-visioning** that ensures the vision remains vital and relevant.

Mid-term visions provide **tangible goals and objectives** that near-term projects can steer toward.

Different types of **projects are linked** to each other via mid- and long-term, co-created visions. These ecologies of projects and initiatives becomes **"steps"along the transition pathway** toward the desired mid-term future.

Backcasting from the long-term visions to the present, creates a transition pathway and **projects become "steps" in a transition** toward the desirable future

| A TRANSITION DESIGN APPROACH |

In both the SMH and the WBX CEADL cases, a **'transition design' (TD)** approach was used. TD is forwarded by Irwin et al.**[10]** as an answer to the realization that conventional design thinking has become inadequate for solving today's *'wicked problems'* and that a new language and system are necessary to innovate and build inclusive innovation cultures**[11]**. As such, TD includes a radical focus on future-based narratives**[12]**.

According to Irwin et al. Transition Designers work in three broad areas:

1. They develop powerful narratives and visions of the future or the 'not yet',

2. They amplify and connect grassroots efforts undertaken by local communities and organizations, and

3. They work in transdisciplinary teams to design new, innovative and place-based solutions rooted in and guided by transition visions.

In the context of TD, **'visioning'** is forwarded as an activity that can *'create spaces for discussion and debate about alternative futures and new ways of being,'* and **'futuring'** as an activity based on the idea that *'design solutions in the present can be informed by longer-term visions of sustainable futures'***[13]**.

According to Fry**[14]**, such approaches are requiring participants *'to suspend disbelief and forget how things are now and wonder about how things could be.'* As a result, this author characterizes these as *'prefigurative practices,'* allowing architects/urbanist to - in alliance with other societal actors - address present shortcomings through the concrete characterization and/or materialization of a better future alternative.

10. Irwin et al., 2015.
11. Fry, 2009; Storey, 2016.
12. Candy, 2015; Dunne & Raby, 2013; Porritt, 2013; Manzini & Jegou, 2003 cited in Irwin et al., 2015.
13. Irwin et al., 2015.
14. Fry, 2009.

Alt_Shift* CEADL courses

04

"Housing as a verb" Turner & Fichter, 1972

Oosterlynck et al., 2016 ***" Place-based solidarity"***

Pak, 2016 ***"Participation in and through design"***

"Temporary use of Waiting Spaces" De Smet, 2013

"Architectural Design Justice" Romero & Pak, 2021

"Social Resilience Cells" Paidakaki & Moulaert, 2017; 2018

For the organization of the **Community-Engaged Architectural Design Learning (CEADL)**, the Alt_Shift* research group either re-frames its members' own design studio and elective courses or makes agreements with colleagues about 'hacking' their courses. Since 2020 three 'official' SL courses have moreover been established at the KU Leuven Faculty of Architecture by the Alt_Shift* research group: the *'Altering Practices for Urban Inclusion SL Electives'* (ELB1 and ELB2) and the *'Altering Practices for Urban Inclusion SL Master Dissertation Studio'* (MAIB42).

Alt_Shift* CEADL courses

04

[Fig. 31] *Altering Practices for Urban Inclusion Elective 19'-20'*
Source: Alt_Shift* Archive

| PRACTICAL ORGANIZATION |

To ensure both academic quality as well as real-world relevance and rigorous research output after selecting the course to be 'hacked', we work with the course tutors and the administration to align the course's aims and the research group and its partners' aimed for outcomes. Furthermore, we also consult with all the involved stakeholders to streamline the timing and practical organisation. This for example includes finding suitable locations and aligning the course timing with the SMH partners' agendas and the faculty calendar.

At the start of the lessons, the students are introduced to the research group, the involved societal partners, and the specific topics and challenges these are co-addressing in the context of their ongoing (research) project(s). Moreover, in each course, a series of theoretical concepts are introduced, such as *'place-based solidarity'*[15], *'temporary use of Waiting Spaces'*[16], *'participation in and through design'* [17], *'housing as a verb'* [18], *'architectural design justice'* [19], and *'Social Resilience Cells'*[20]. These form a hybrid theoretical framework running like a red thread through the courses and enabling sense-making across several semesters.

Thereafter, the students are invited to start collaborating with the other project partners to deliver results contributing to the project(s) at hand. The courses are taking place both on-campus, as well as on-site, as such emerging the students in the Brussels urban context.

To facilitate reflection and allow impact evaluation, feedback is gathered from the directly involved partners and the students before, during, and after each course cycle. Examples of the methods used in this context are group discussions, (one question) interviews, collective writing, directed writing, structured (team) journals, questionnaires, and (self-)evaluation sessions (in which we employed tools such as photo-elicitation, time lining, and the Socratic Wheel). The input gathered in this way is also used to constantly develop and improve the CEADL approach further throughout the process.

15. Oosterlynck et al., 2016.
16. De Smet, 2013.
17. Pak, 2016
18. Turner & Fichter, 1972.
19. Romero & Pak, 2021.
20. Paidakaki & Moulaert, 2017; 2018.

| FOCUS & RESULTS |

The focus of most of the SMH CEADL courses and the first WBX CEADL course was on **'futuring',** which, as mentioned above, is defined by Irwin et al. (2015) as an activity based on the idea that 'design solutions in the present can be informed by longer-term visions of sustainable futures.' In these courses, all actors thus gathered around imagined, radically new, ideas for the future, which inspired the proposal of feasible / small, modest design interventions and proposals for the present.

The focus of the joint SMH and WBX CEADL course - the Envisioning the Future of Temporary Housing and Inclusive Collective Spaces in Brussels SL Dissertation Studio - was on **'visioning'** which, as mentioned above, is defined by Irwin et al.[21] as creating *'spaces for discussion and debate about alternative futures and new ways of being.'* In this course, the ten involved students thus collectively explored and reflected (in a theoretical as well as in a designerly way) together with the other SMH and WBX project partners, on the potential long-term futures for these projects. As such, this SL course thus helped to explore / demonstrate the potential socio-spatial impact and innovation potential of these experimental spatial practices.

21. Irwin et al., 2015.

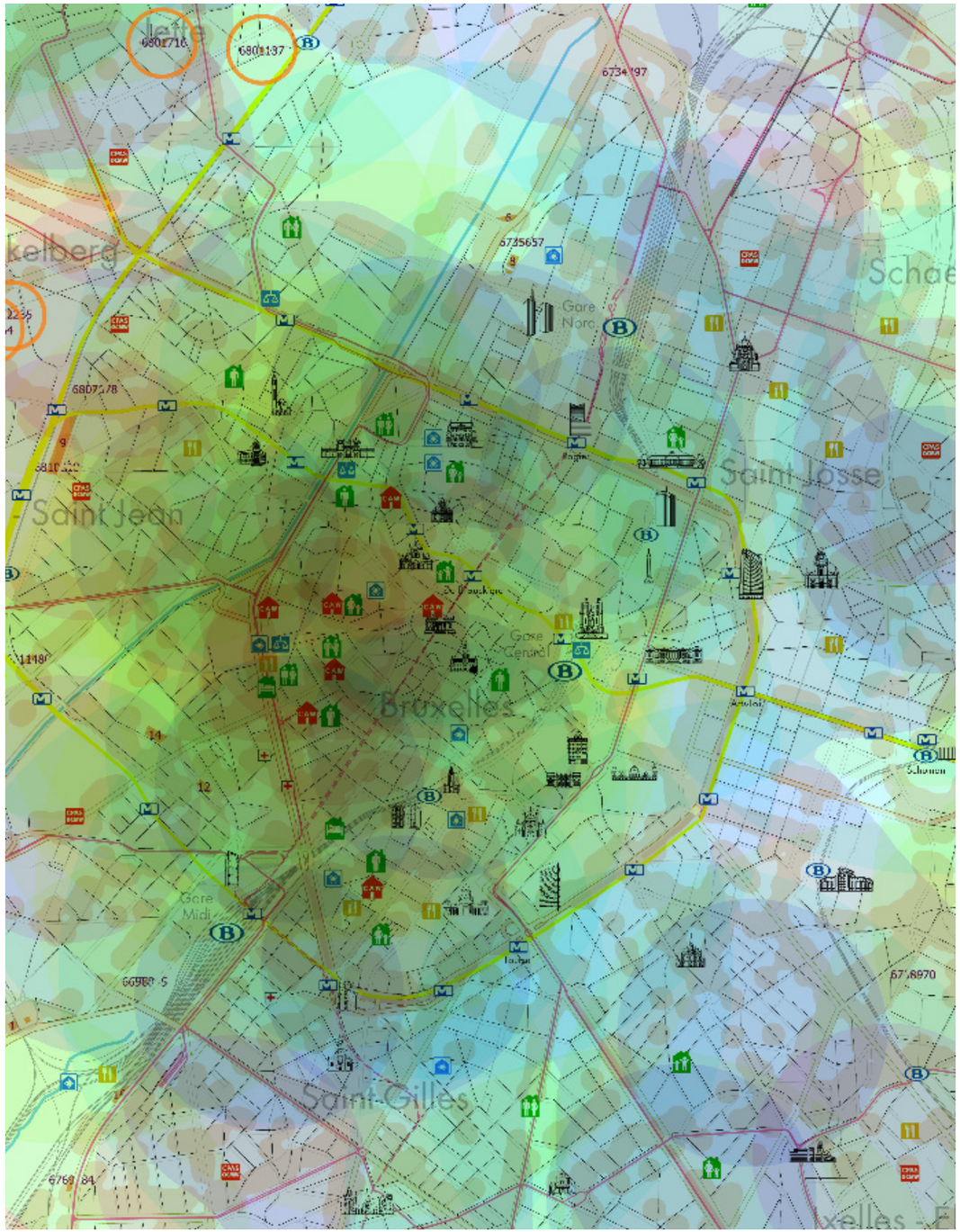
| FUTURING |

1

Urban Projects, Collective Spaces, and Local Identities Ellective

Over the course of the first SMH CEADL course, the SMH Partners worked together with fifteen Faculty of Architecture students on: (1) Analysing the needs and requirements for SMH; (2) Studying inspiring cases from all over the world; (3) Developing a method and criteria for the discovery and selection of a temporary use site.

[Fig. 32] *Material produced by students during the elective: Urban Projects, Collective Spaces, and Local Identities*
Source: Alt_Shift* Archive



2

SMH Design Studio

In the context of the second SMH CEADL course the SMH partners, including the vulnerable / homeless end-users, worked together with seventeen Faculty of Architecture students on the preliminary design for the SMH housing units, collective space(s) and semi-public landscape.

[Fig. 33] *Images of the Design Studio process and final products*
Source: Alt_Shift* Archive

3

Dissecting the SMH Building Elective

During the third SMH CEADL course the four involved Faculty of Architecture students collaborated with the other SMH Partners to work out the technical and construction details of the SMH Architectural Design System.

[Fig. 34] *Pictures of activities with students and other SMH Partners during the elective.*
Source: Alt_Shift* Archive

4

Altering Practices for Urban Inclusion SL Elective '19-'20

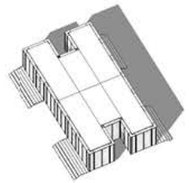
Over the course of the fourth SMH CEADL course, thirteen Faculty of Architecture students contributed to the initiation of the neighbourhood interactions and integration, through the organization of two temporary on-site interventions and the design and realization of a series of small-scale 'infrastructures' to facilitate the shared use of the site. Moreover, the students also studied and compared a series of similar cases from Belgium and abroad and used these as a ground to collectively reflect with the other project partners on the past and future processes and outcomes of the SMH project.

[Fig. 35] *Activities on-site with students for the Altering Practices for Urban Inclusion Elective.*
Source: Alt_Shift* Archive

TYPOLOGY 2A

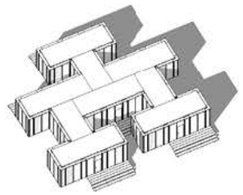
TYPOLOGY 2B

TYPOLOGY 4A

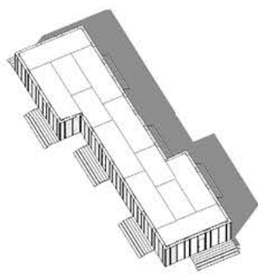


TYPOLOGY 4B

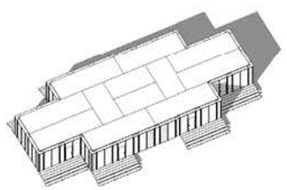
TYPOLOGY 6A



TYPOLOGY 6B



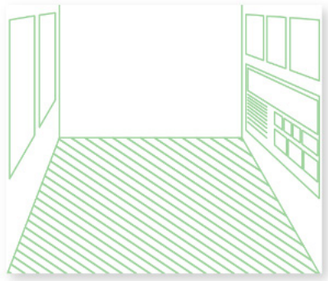
TYPOLOGY 8B

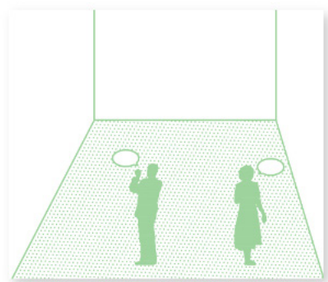


TYPOLOGY 8C

Solidary Mobile Housing
virtual exhibition

Main Page
About
Get Involved
Contact





Altering Practices for Urban Inclusion SL Elective '20-'21

During the fifth SMH CEADL course - the Altering Practices for Urban Inclusion SL Elective '20-'21 - four Faculty of Architecture students contributed to the SMH Proof of Concept study, by **(1)** preparing tools for the on-site demonstration; **(2)** testing the adaptability of the SMH Architectural System through design research; **(3)** designing a project folder to be used in the SMH market exploration; and **(4)** helping to prepare an online and on-site project exhibition.

[Fig. 36] *Images of some of the outputs of the Elective course. Left: SMH Typologies prototypes. Right: Virtual exhibition available at: https://solidhomes.be/*
Source: Alt_Shift* Archive

6

WBX Elective

In the context of the first WBX CEADL course four Faculty of Architecture students used the existing WBX system (under development) to design the first WBX pilot project in Molenbeek, together with the other project partners and in interaction with the future end-users.

[Fig. 37] *Final products of Students designs for WBX. Top-left: Render image by Sara . Top-right: Render by William Pawells. Bottom-Left: Render image by Vitor Breder. Bottom-right: Picture of the Archiweek Exhibition 2021. The organizers of the exhibition selected the WBX pilot project as part of the event.*
Source: Alt_Shift* Archive

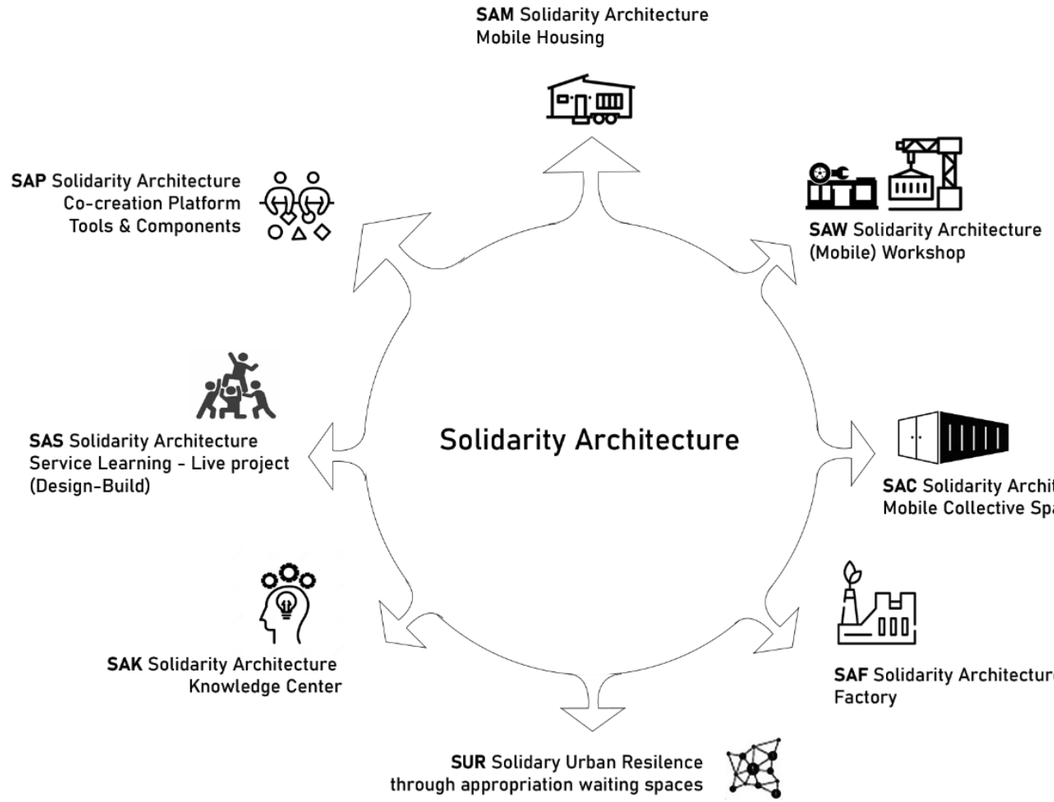
| VISIONING |

With respect to the students who used in their Master Dissertations the SMH as a primary background, the **'visioning'** included: the development of a perspective for the future of the Solidary Mobile Housing Production Process **[22]**; a Framework for Civic Production of Mobile Housing **[23]**; an exploration of the socio-spatial aspects and prerequisites for the Transformation of Urban Waiting Spaces into Spaces of Solidarity **[24]** and for Collective Living **[25]**; and a research on Discrete Architecture for Solidary Mobile Housing **[26]**.

Furthermore, with respect to the students who used first and foremost the WBX project as a primary background, the process of 'visioning' included: the unfolding of the Potential Performativity of Collective Spaces **[27]**; the strategies for Alleviation and Response against (Youth) Houselessness **[28]** **[29]**; the development of an 'autonomous city' agenda framework to achieve an alternative right to the city and housing affordability in temporary housing practices **[30]**; and the exploration of the concept of Mobility for waiting spaces activation **[31]**

22. Ghotbi, 2021.
23. Zarei, 2021.
24. Vasudevan, 2021.
25. Iberdemaj, 2021
26. Esfahani, 2021.

27. Ozturk, 2021.
28. Claessens, 2021.
29. Alaieshahmiri, 2021.
30. Silveira Breder Rocha, 2021.
31. Borys, 2021.



[Fig. 38] *Master Dissertation Studio Tracks.*
Source: Burak Pak.

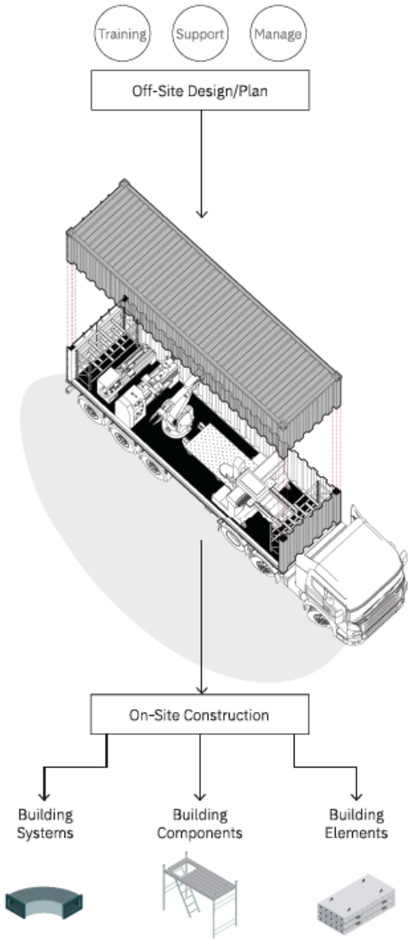
Architecture Factory 5.0: [Mobile] Housing Production as Social Innovation

This research aims to rethink housing production and push the boundaries of the construction industry by promoting mobile housing and self-assembly to involve the user and his life experience; transform the mobile housing production into a stage for innovations through co-creation. The research yielded three outcomes that work together purposefully and seamlessly: Co-design platforms, Architecture Factory, and Mobile Factories. These three can metaphorically represent three major steps in a construction process: design, plan, and build.

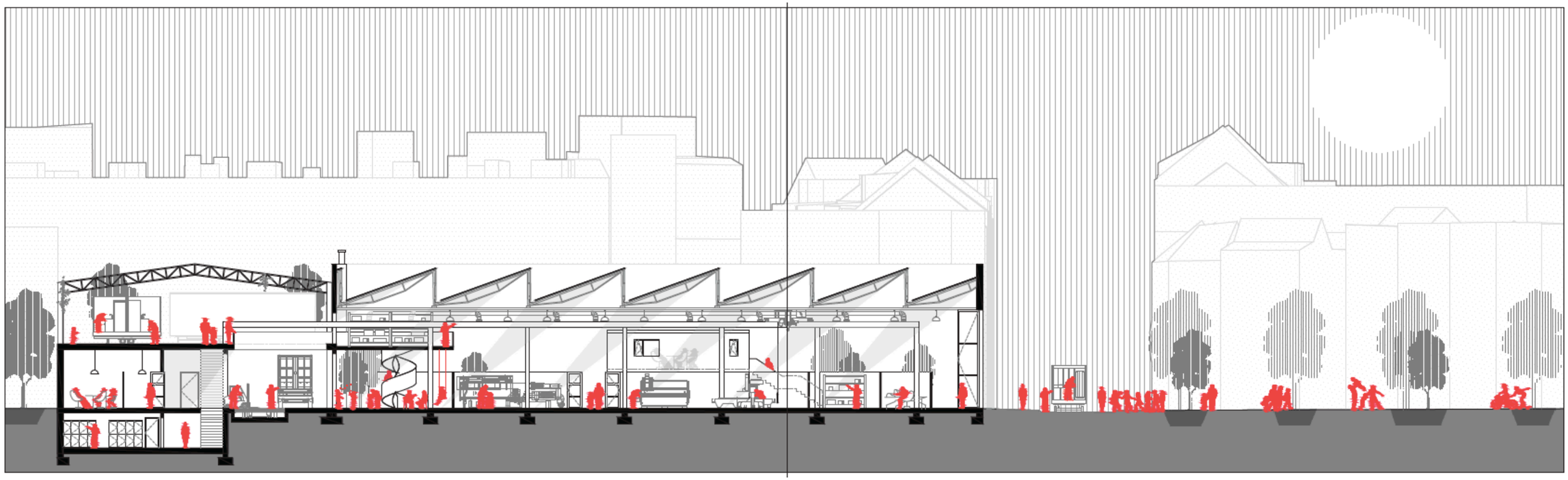
Architecture Factory 5.0 is a fertile and sustainable ecosystem for social innovations, a platform for all the parties involved in [mobile] housing production and the cooperations to improve the housing quality, financial condition, social integration, spatial equality, and sense of belonging.

Concepts: industry 5.0, society 5.0, democratic design.

Mahdi Ghotbi



[Fig. 39] *Images of the design and its concept made by the author.*
Source: Ghotbi, 2021.



[Fig. 40] *Section of the design made by the author. No scale.*
Source: Ghotbi, 2021.

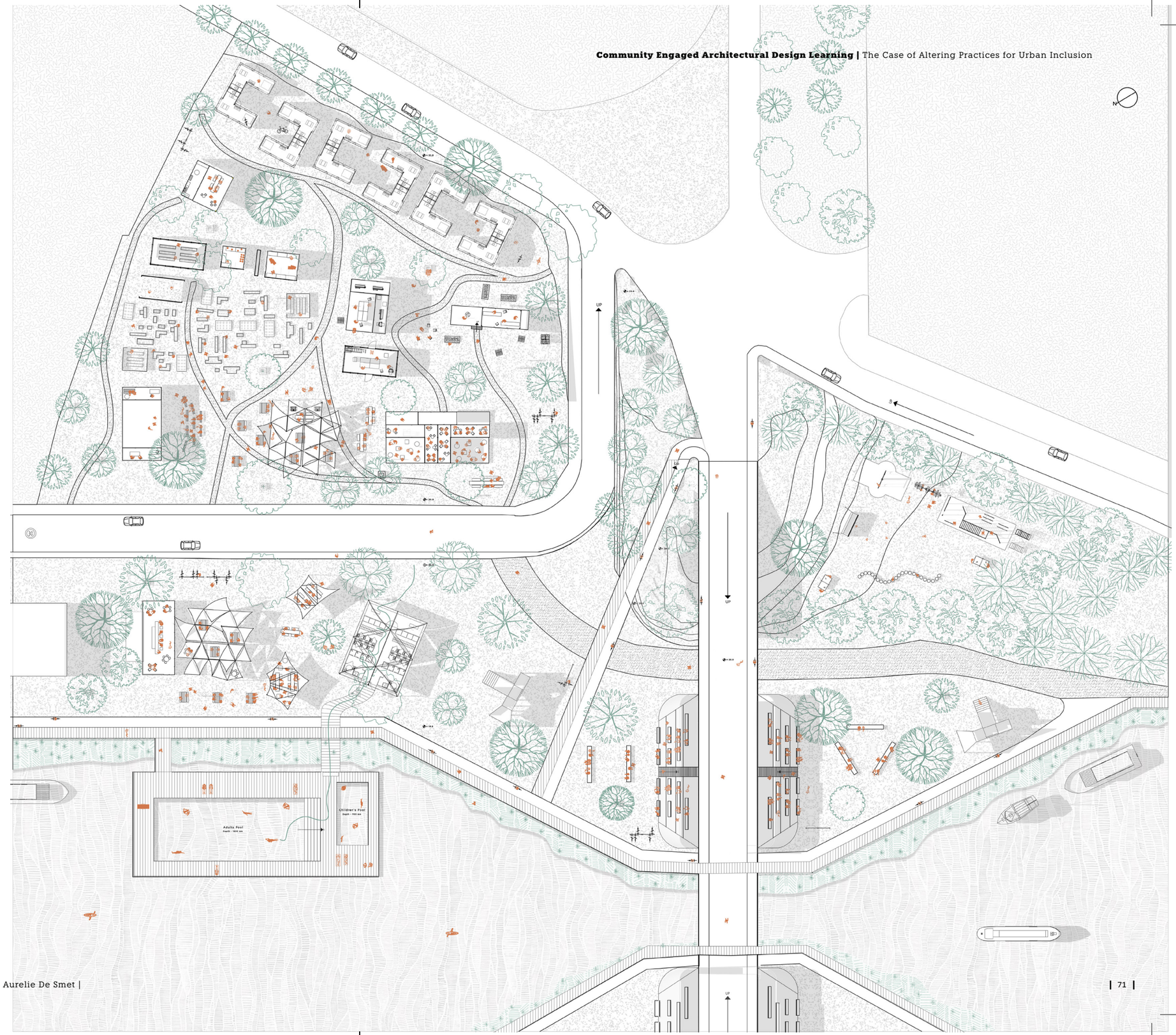
Waiting Spaces in Brussels as an Architecture of Solidarity

The dissertation questions the potential of these vacant spaces to become a place of solidarity that can bring together diverse sets of communities and create a new sense of place in them.

Through place-based solidarity and commons, architecture becomes a resource for solidarity. The design aims to address this in the urban and architectural scale. In the urban scale, it proposes an informal solidarity network for temporary use for waiting spaces in Brussels. It elaborates on how this could be managed and implemented, whilst making connections with the regional development plan for Brussels. In the architectural scale, spatialising solidarity has been explored through interventions that stimulate interactions between culturally diverse communities, on a particular waiting space in Brussels.

Concepts: waiting spaces, place-based solidarity, informality, urban resilience, participation.

Mahishini Vasudevan



[Fig. 41] *Master plan of the design made by the author. No scale.*
Source: Vasudevan, 2021.

[Fig. 42] *Section and perspective view of the design made by the author. No scale.*
Source: Vasudevan, 2021.

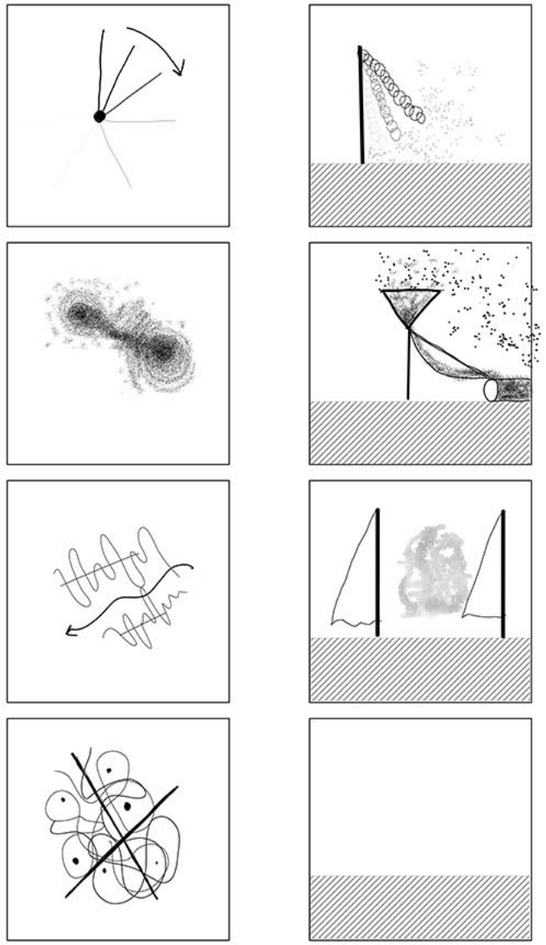
Mobile and Performative Collective Spaces for Transitional Co-Creation

The thesis explores alternative dimensions of placemaking between theatre space and geometric space, defined as striated space; gridded, linear, metric, optic, state-space by Deleuze and Guattari. The project is an example of how architecture can engage with local communities and operate as a generator for public engagement and cultural production in a broader sense.

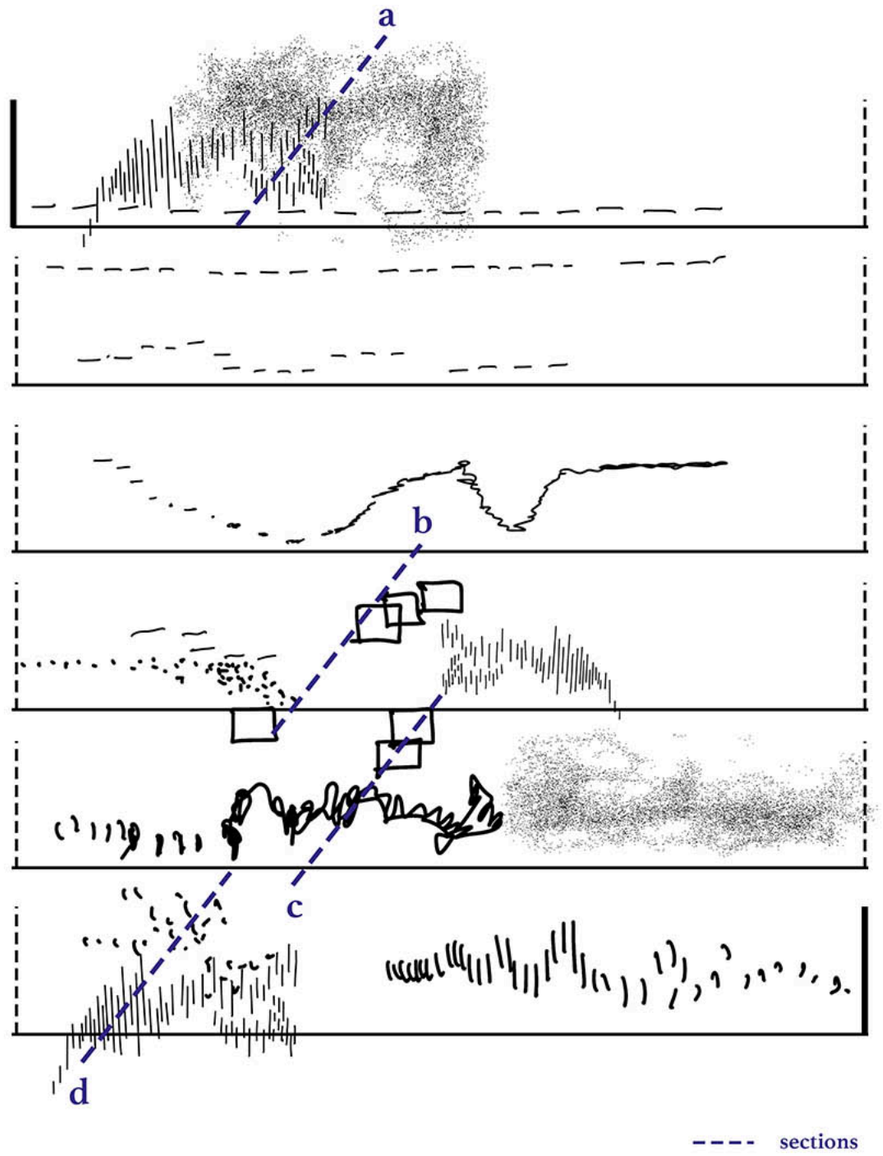
The mobile collective space aims to engage the Woonbox inhabitants and artist residents with co-creation at the neighbourhood level. So that it can activate new solidarity networks in the local context. The project provides a set of tools to re-think our relationship with the city and its resources. Using the public sphere as an arena of deliberation and political participation is a fundamental element of performative.

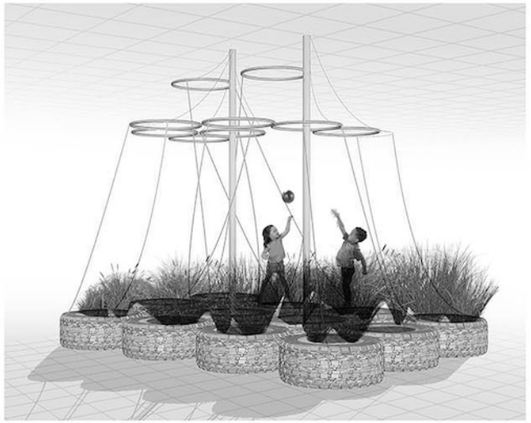
Concepts: smooth space, which is: fluid, open-ended, non-linear, intensive, haptic, nomad space

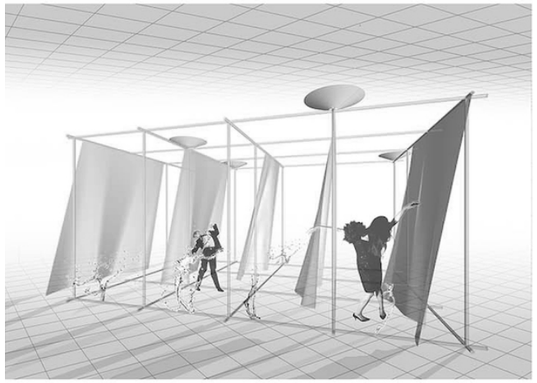
Zeliha Ozturk



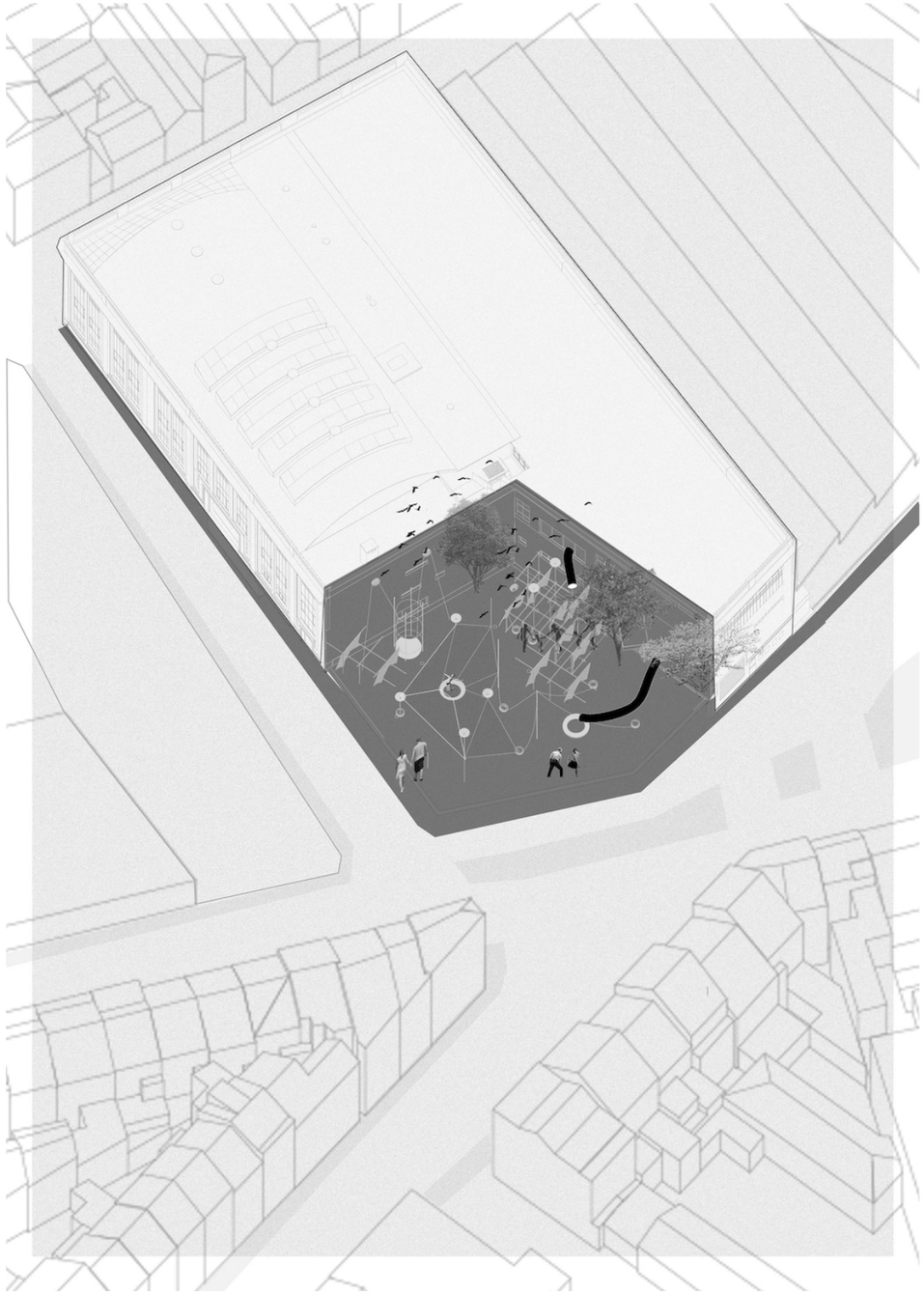
[Fig. 43] *Conceptual drawings made by the author. No scale.*
Source: Ozturk, 2021.







[Fig. 44] *Perspective views of the Design made by the author. No scale.*
Source: Ozturk, 2021.



Alleviating youth houselessness by re-using the vacant as temporary housing

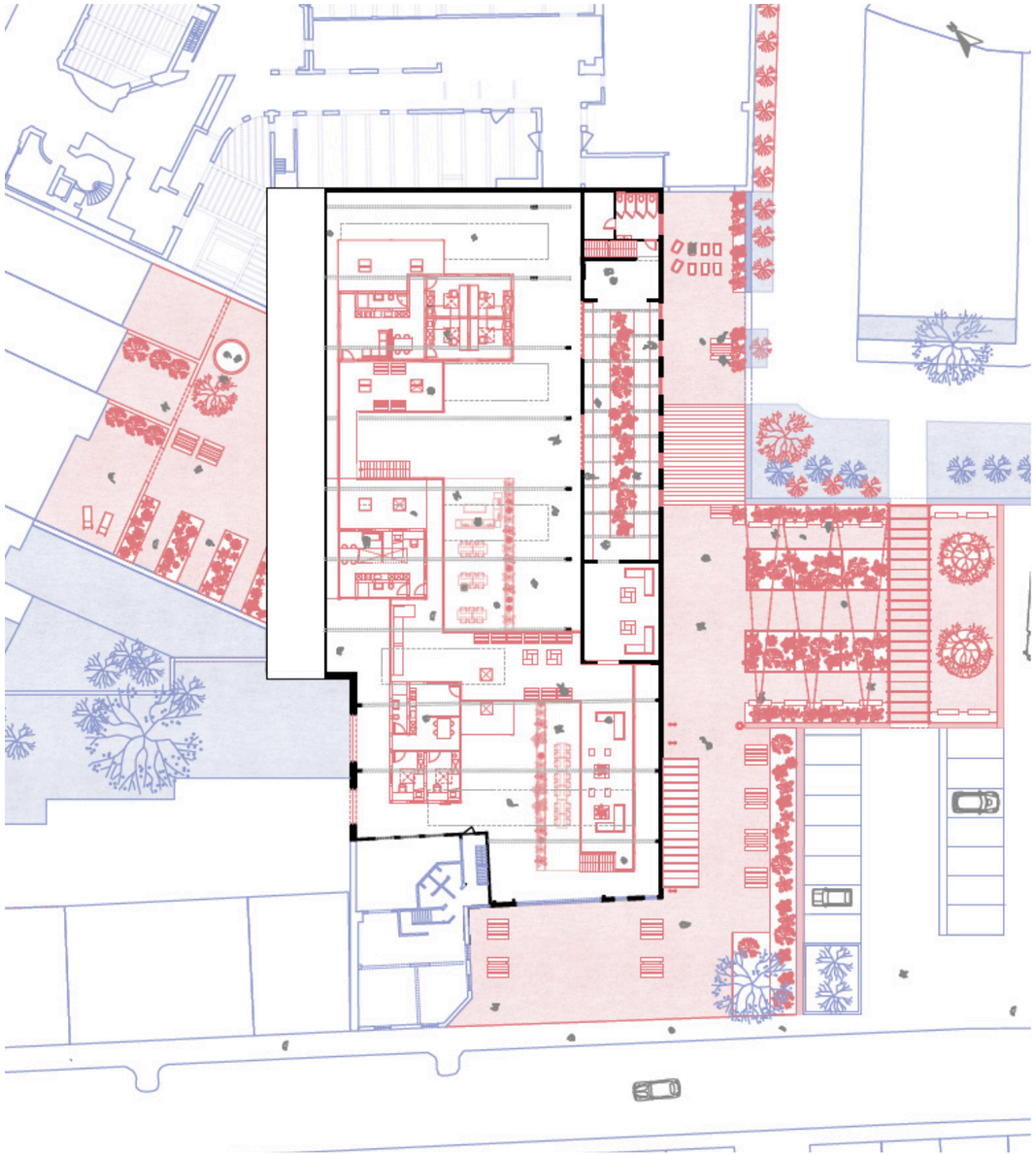
This master dissertation deals with the alleviation of houselessness through the re-use of vacant spaces as temporary housing. It addresses the following research questions: How can vacant properties be reactivated into temporary affordable housing solutions and as well provide work opportunities? How can temporary housing in vacant properties reduce vulnerability and increase sustainability at several levels within the context of everyday life? How can the home-making process be inclusive, community-engaged & co-creative?

The thesis results include a guide to the alleviation of youth houselessness, the analysis of potential future locations, and an architectural intervention introducing a pilot project for a building in Jette.

Concepts: sustainability, vulnerability, vacancy, inclusive co-creation

Leen Claessens

[Fig. 45] *Axonometric view of the Design made by the author. No scale.*
Source: Claessens, 2021.



[Fig. 46] *Perspectives (left) and Ground floor plan (right) of the Design made by the author. No scale.*
Source: Claessens, 2021.

Re-Assemblage: A Framework for Civic Production of Mobile Housing

The thesis is situated in the context of Brussels' housing shortage. It relates to vulnerable groups and their right to affordable, qualitative housing. The affordances of co-creation tools are the foundation for this research. The research questions are:

1. How can an assemblage of co-creation tools and components enable and empower a city and its citizens in the making of self-organized, affordable housing (as a verb) and related collective spaces, especially for vulnerable inhabitants?

2. What are the affordances of digital tools for design empowerment to reach this aim?

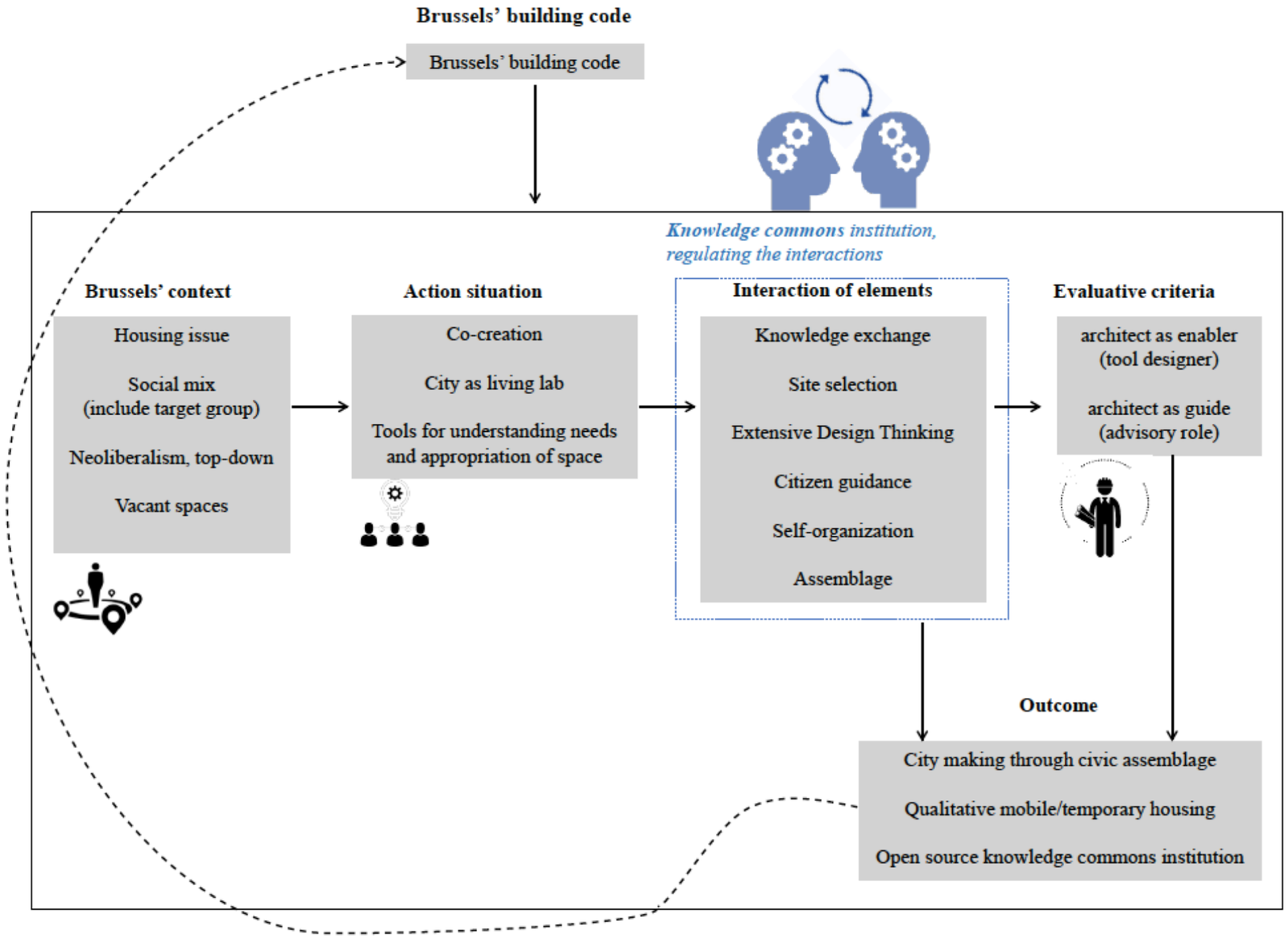
3. What is the potential role of the architect (student) in this process?

These questions are the lens through which the possible solutions for the housing issue and the shifting role of the architect in this context are looked at.

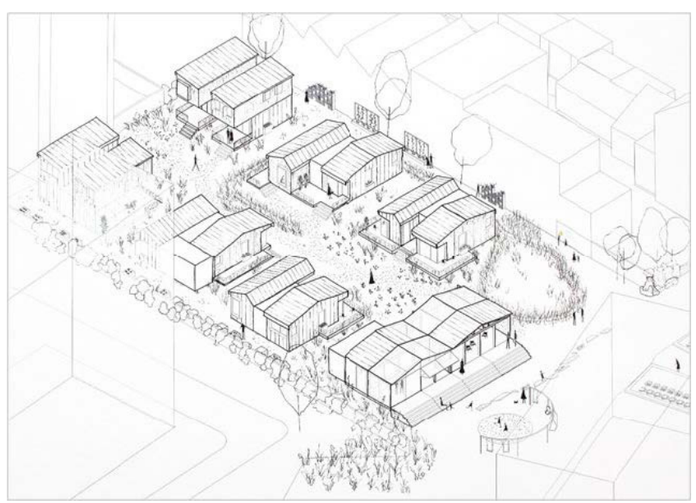
The result of this research manifests itself in the proposition of an assemblage of three interrelated elements: the Agora Institution, a digital application, and an appropriation scenario. The overarching framework for these elements, the Operational Framework for Civic Assemblage (OFCA), suggests a governance model that goes beyond the spatial aspect of architecture. With citizen empowerment and self-organized projects at heart, the proposed design enables city making through civic assemblage.

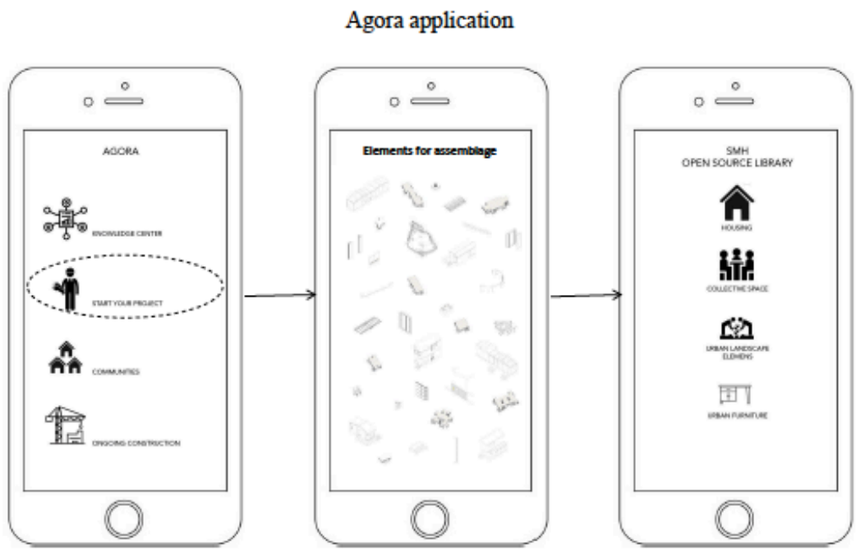
Concepts: co-creation tools, self-organization, housing 'as a verb'

Khatereh Zarei Malekabadi



[Fig. 47] *Conceptual framework of the Design made by the author. No scale.*
Source: Zarei, 2021.





[Fig. 48] *Images (left) and application system scheme (right) of the Design made by the author. No scale.*
Source: Zarei, 2021.

Responsive Mobile Housing: Changing in Response to Change

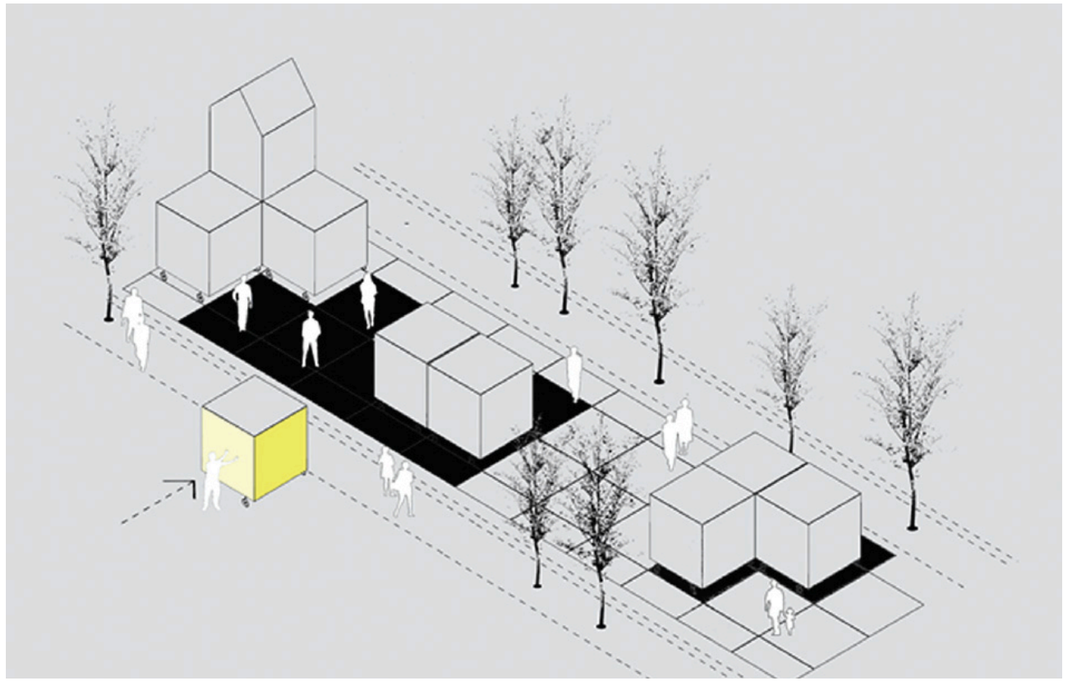
Homelessness in Belgium, and in particular Brussels, is increasing. Social housing projects are the answers to this growing need of homeless people for affordable housing but they are often designed and implemented for a group of potential users with the same situation or characteristics while this is not the case most of the times as the target audience is of different ages, genders, cultures, or household size and compositions. This matter necessitates designing housings which they can personalize to fit their very own conditions and in this way be participated. On the other hand, the homeless suffer from social isolation and socioeconomic vulnerability. Hence, it seems crucial to look for a way to integrate them into society and create a sense of belonging in them as quickly as possible.

In this dissertation, it is tried to achieve the two above-mentioned objectives utilizing the concepts of "participatory design", "flexible architecture", and "tactical urbanism" with the hope of making tangible improvements in the life quality of the homeless.

Concepts: participatory design, flexible architecture, tactical urbanism

Sara Alaieshahmiri

[Fig. 49] *Image of the Design made by the author. No scale.*
Source: Alaieshahmiri, 2021.



[Fig. 50] *Images of the Design made by the author. No scale.*
Source: Alaieshahmiri, 2021.

Master of Architecture Brussels Laureate

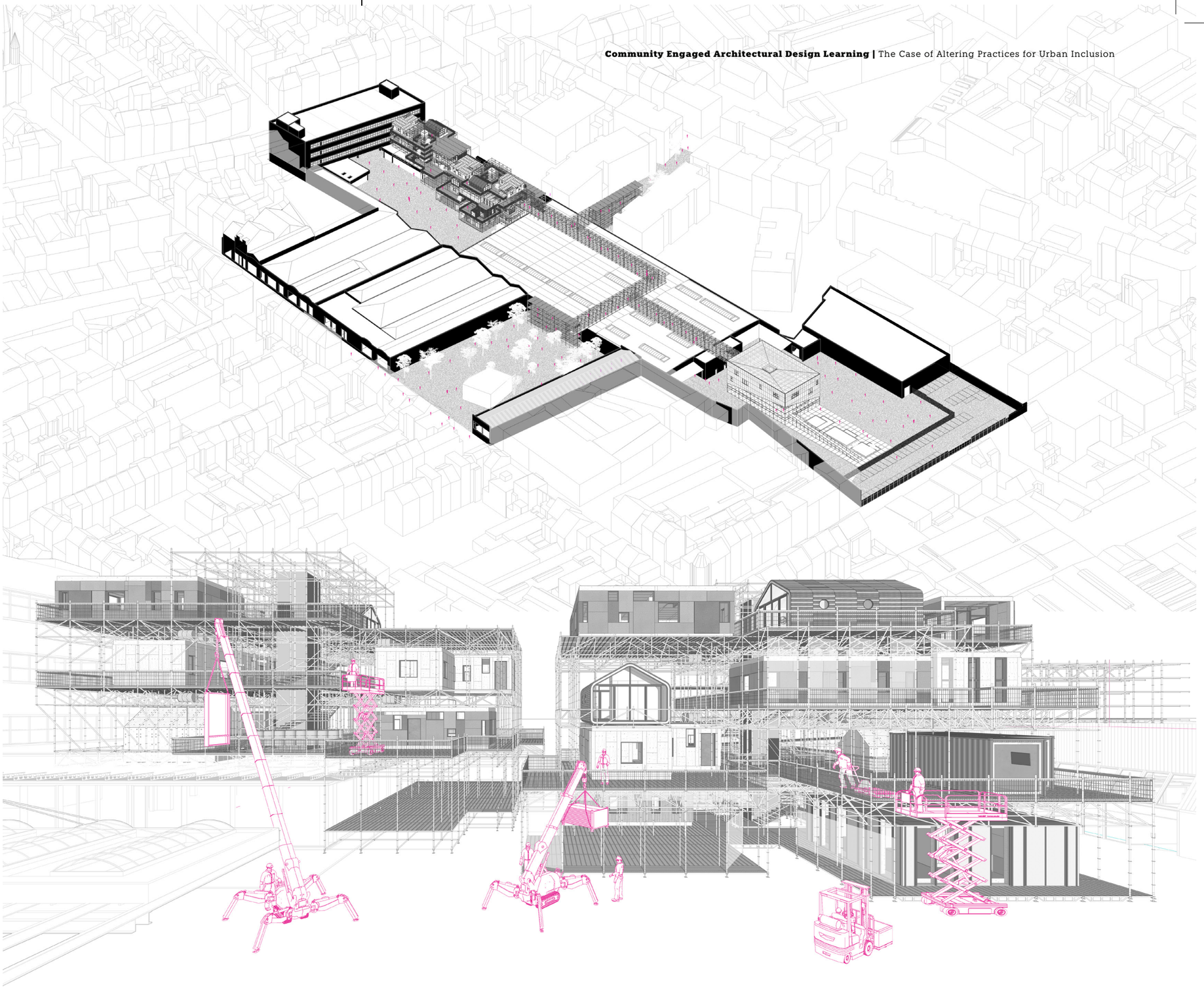
The Autonomous City: Possible tangencies of an alternative [right to the] city and affordable mobile housing

The lack of options in the formal market has led to the pursuit for alternative initiatives to Neoliberalization processes, often making use of various interpretations of Autonomy as a claim, a tool or a goal inside their endeavours for more socially just realities. However, once more, misconceived interpretations of the concept of Autonomy is leading to market appropriations, who use this methodology as a free route for labour exploitation and Capital accumulation.

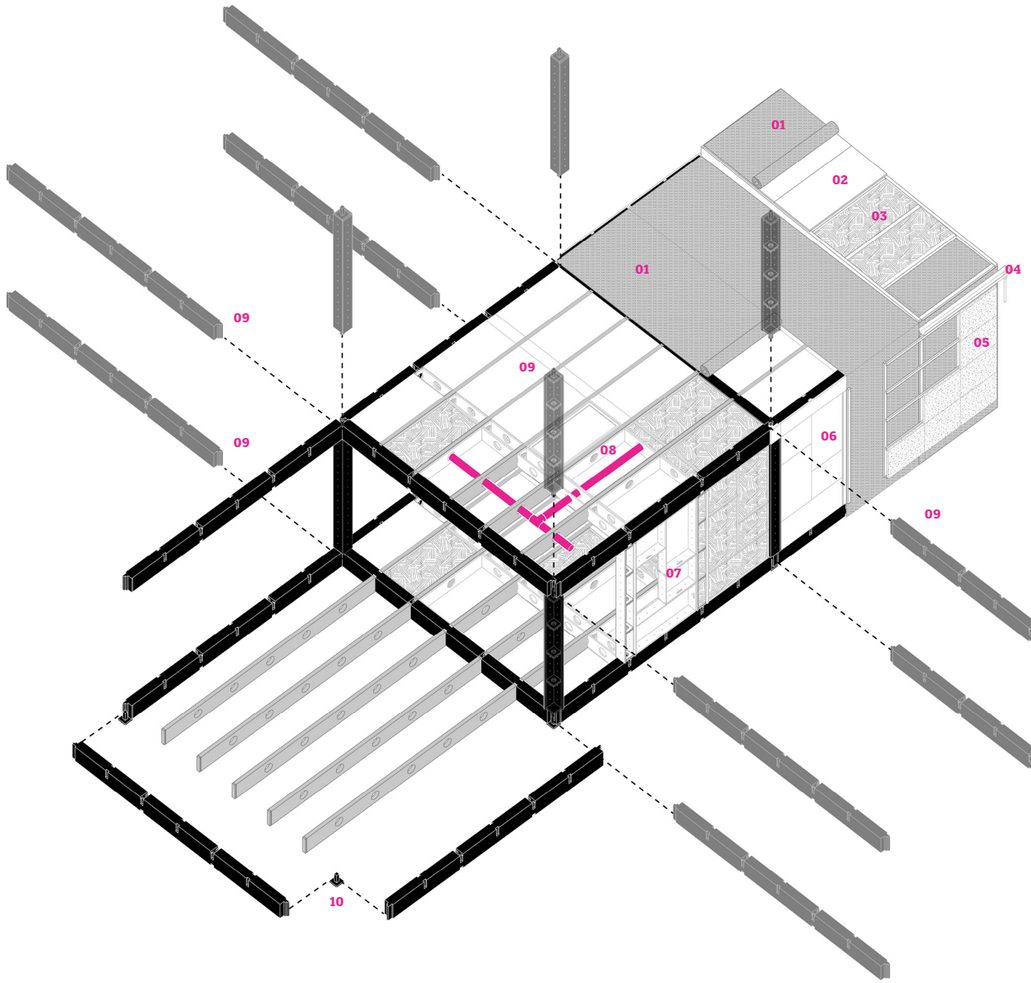
This work is an attempt to respond to those issues by developing a concept of Autonomy that gathers notions of the Commons; De-financialization of housing; Citizen participation; Occupation and Activism; and Flexibility in Architecture, the research tries to respond to each and every premise of Neoliberalism. The aim is to create a flexible framework for its application in cities. To present the possibilities, the final outcome merges Temporary Use with Mobile affordable housing as part of an Autonomous City Agenda. For this intent the Circularium site, located in the district of Cureghem Rosée, Brussels, offered the perfect scenario.

Concepts: autonomy, commons, de-financialization of housing, citizen participation, occupation and activism, flexibility in architecture

Vitor Silveira Breder Rocha

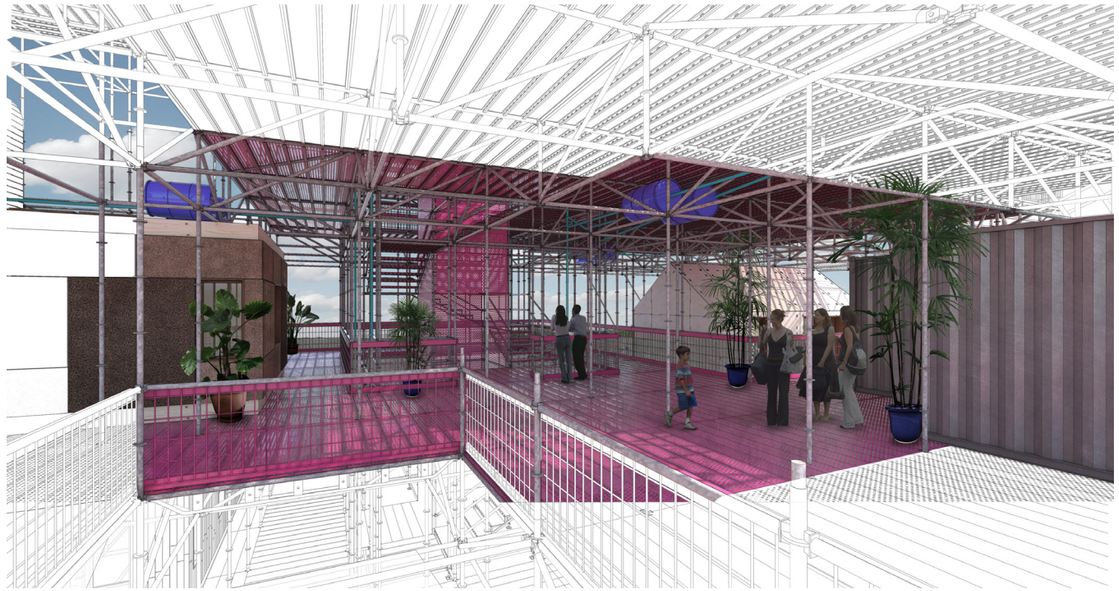


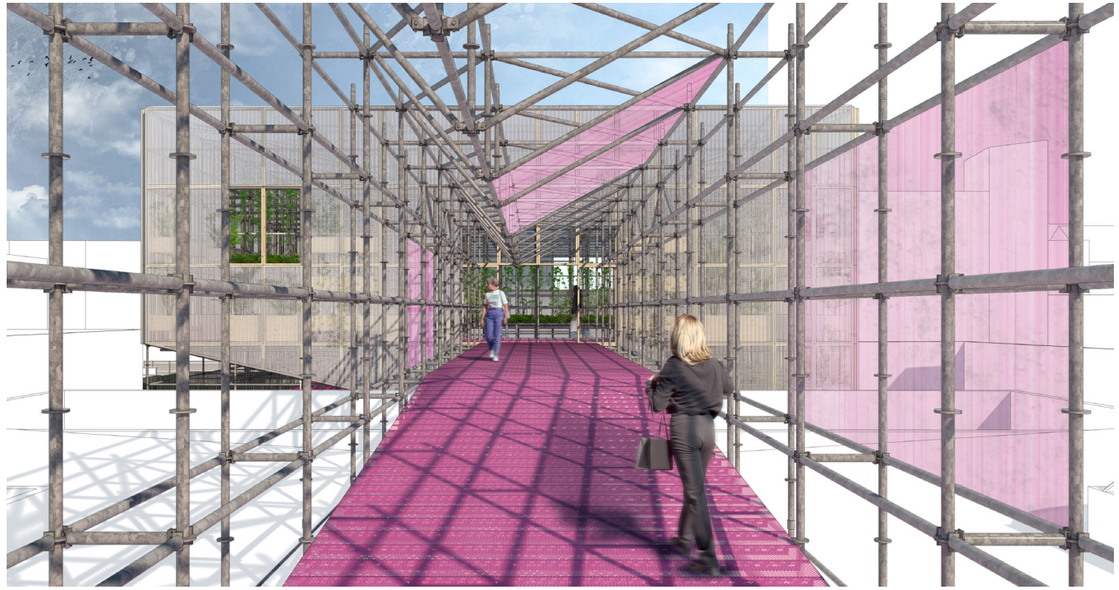
[Fig. 51] *Axonometric implantation (top) and Image overview (bottom) of the Design made by the author. No scale.*
Source: Silveira Breder Rocha, 2021.



■ Structure (beams and columns)

01 Air tight Membrane
02 Wooden panel
03 Insulation
04 Rain gutter
05 Cladding
06 Wall system subdivided
07 Wall system open in boxes
08 Internal beams and closing system allowing installation to pass through
09 Increase of the structure through joints
10 Pedestal for assemblage





[Fig. 52] *Exploded axonometry of temporary housing modules (left) and Images of the Design (right) made by the author. No scale.*
Source: Silveira Breder Rocha, 2021.

Collective Living: A Proposal for Integrated Temporary Housing

The research questions asked at the beginning of this research relate the integration of waiting spaces into the existing built environment, at the City, neighbourhood and architectural level and the benefits of temporary interventions in this integration process.

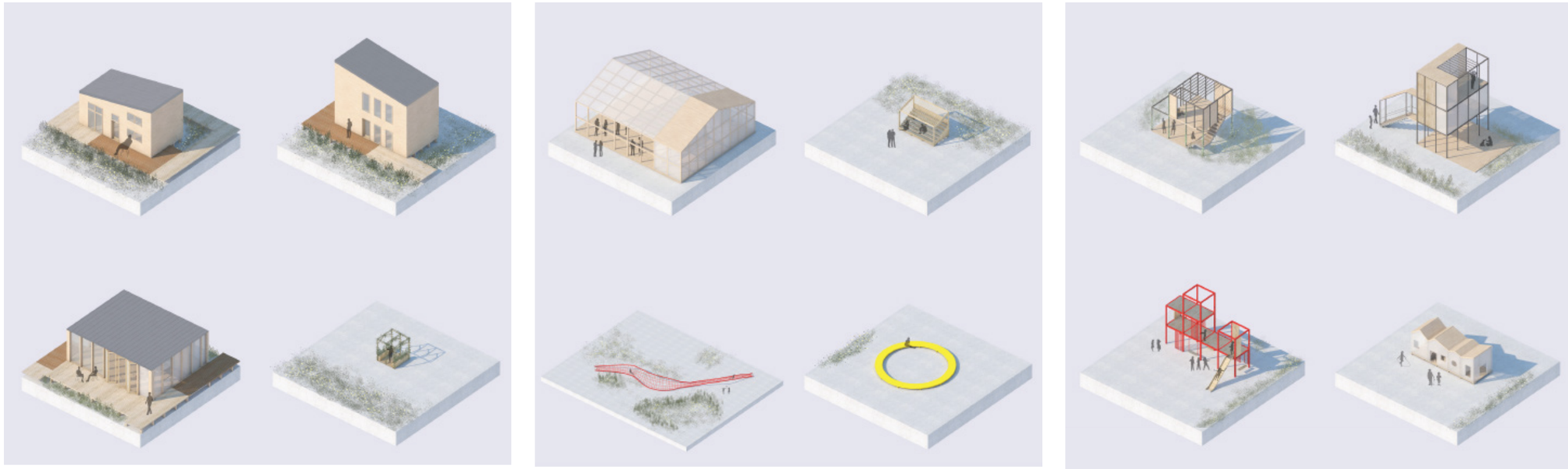
The design intervention is focused on collective living for vulnerable citizens and collective spaces used by the surrounding neighbourhood as well. The collective spaces include educational, sports and cultural activities. They create a range of appropriations enhancing the connection to the neighbouring community. A space which is open, accessible and connects people. The design would encourage movement and play in a residential area where those type of activities are missing. Even though the interventions are temporary, there is a possibility for the site to transform itself into a more permanent one, and become part of the neighbourhood.

Integration through collective living is the main focus of the design. A way of living where the inhabitants could share space and get involved in activities together, using the collective spaces which have multiple purposes while being given the opportunity for some privacy in their private units, as well. The master concept is seen as an experimental site in creating alternative methods of living together, new ways for communities to organize themselves spatially, going beyond the borders of the site.

Concepts: housing, collective space, flexibility & adaptability, co-production, temporality, waiting space

Albina Iberdemaj

[Fig. 53] *Overview of the Design made by the author. No scale.*
Source: Iberdemaj, 2021.



[Fig. 54] *Axonometric schemes (top) and section (bottom) of the Design made by the author. No scale.*
Source: Iberdemaj, 2021.

Discrete Community: Integrated Mobile Housing and Collective Spaces as Co-creative Living

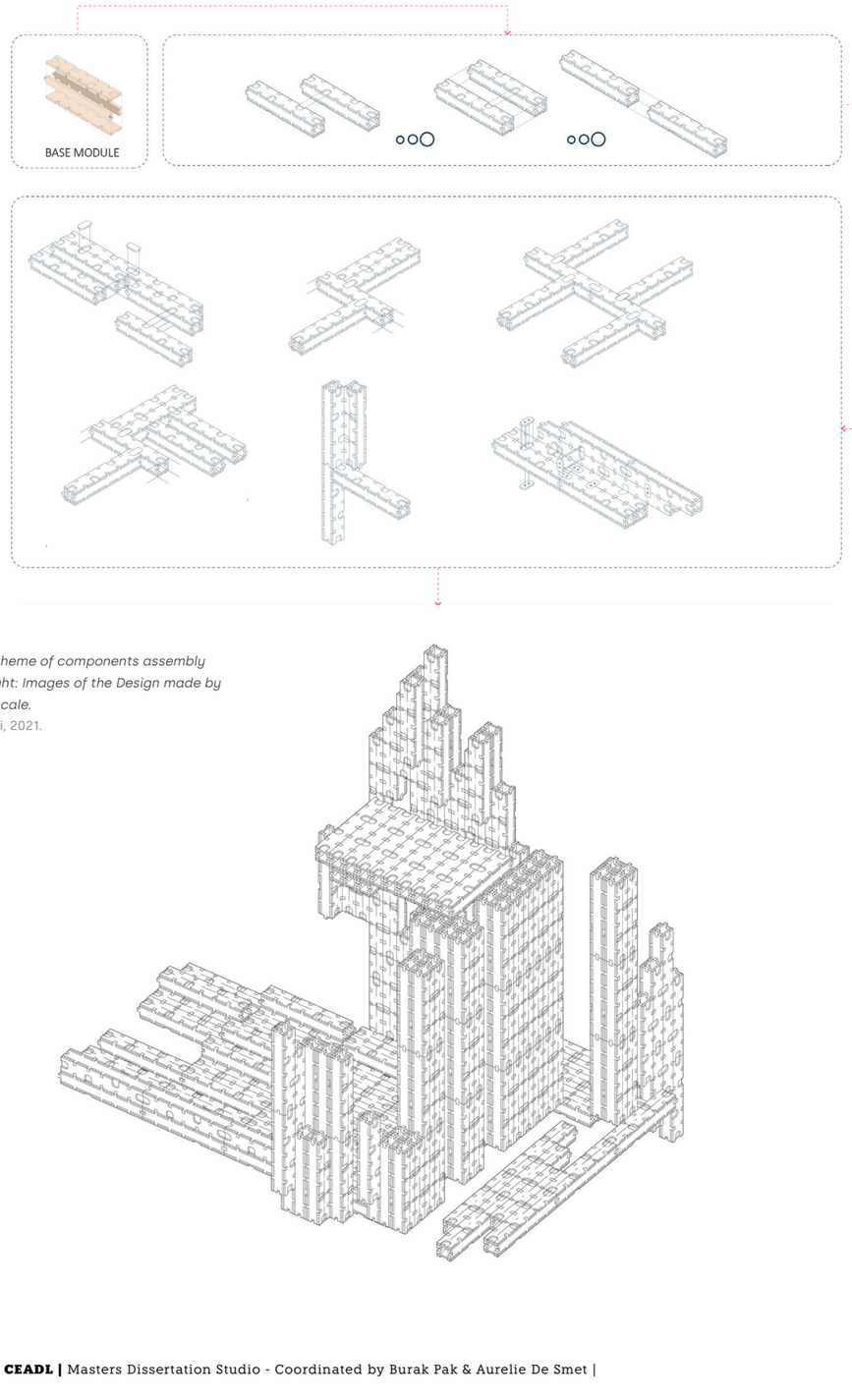
On the one hand, fabrication methods like CNC (Computer Numerical Control) are offering a new alternative that enables designers and users to benefit from highly customized designs and help the designers to become free from restrictions of constructing specific parts. On the other hand, the parametric paradigm offers multiple variable designs on basis of variable data instead of one specific building. However, while these innovations help to produce more customizable and user-oriented designs, they often lack in affordability and access; few firms work with them and their users are often the high-income class clients.

As architects we should use the new tools at hand, to find an alternative model, design open-source platforms in which architects could empower the users at an affordable cost. This design-based research dissertation looks to achieve such empowerment throughout the discrete architecture, not only as a technical system but a socio-technical platform.

Concepts: discreteness, open end system, part-whole relationship, equitable architecture, design empowerment, active community.

Ilya Yazdani Esfahani

[Fig. 55] *image of the Design (top-right) made by the author. No scale.*
Source: Esfahani, 2021.



[Fig. 56] *Left: Scheme of components assembly possibilities. Right: Images of the Design made by the author. No scale.*
Source: Esfahani, 2021.

Incremental Mobility for Waiting Space Activation

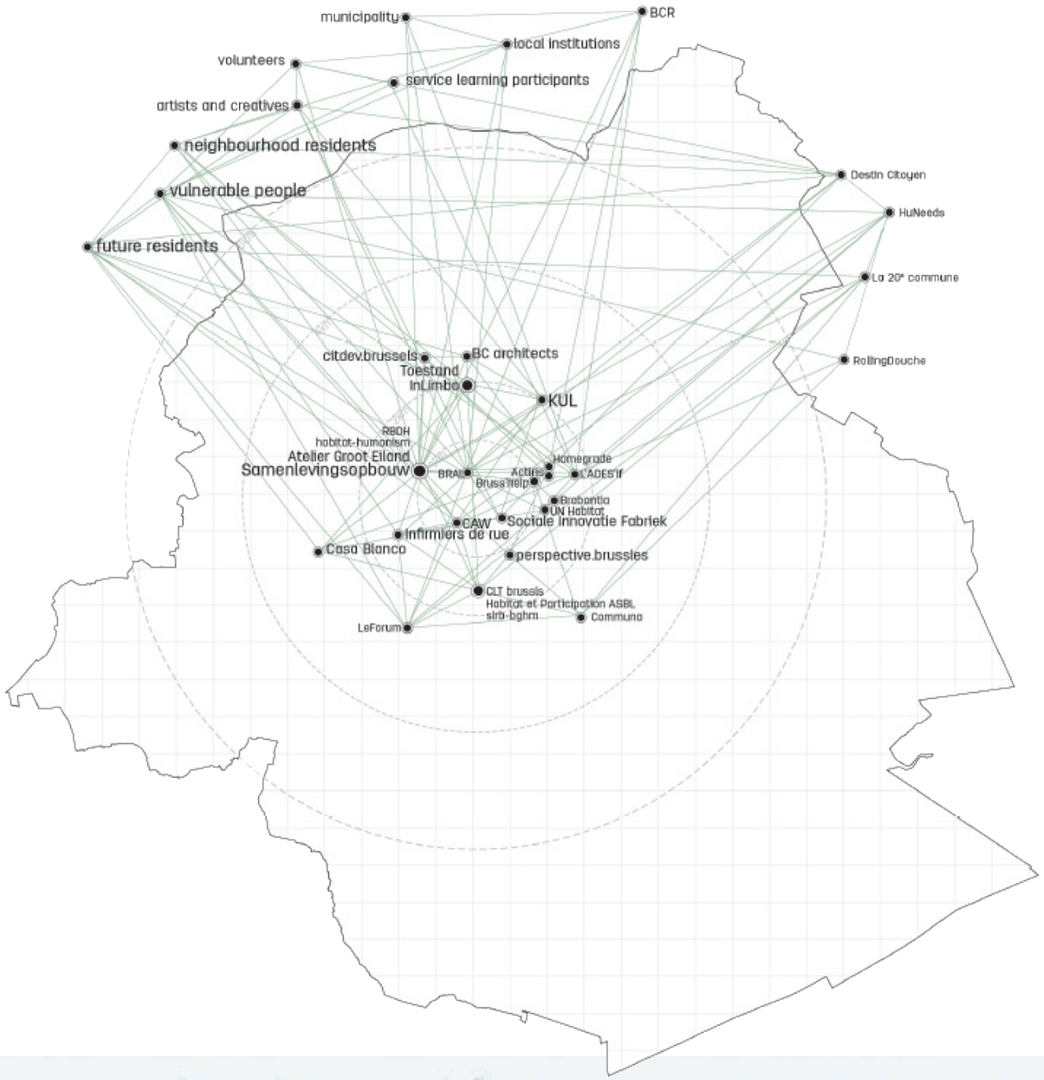
This thesis investigates the issue of social exclusion in the housing system, by taking a closer look at the social impact of current practices and at how the process of activating waiting spaces for provision of affordable housing can facilitate social integration of vulnerable residents into society. The literature review and case studies of collective spaces, housing alternatives, and social projects, have led the conclusion that the key to changing practices is a people-oriented approach and bottom-up practices.

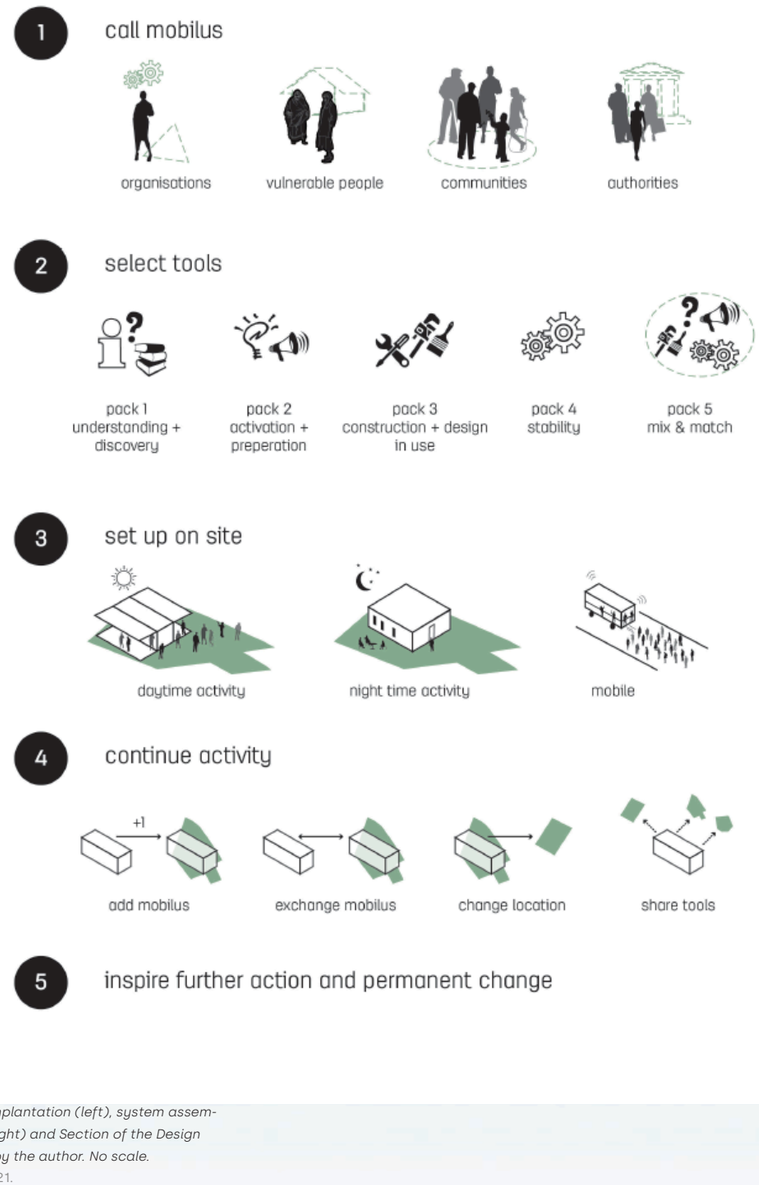
The design proposal suggests a two-layered solution for socio-spatial impact, that is the Mobilus as a process and as a socio-spatial intervention. The Mobilus takes both the form of an organisation and in spatial form a mobile unit that consists of different tools and functions that are deployed but also has great impact in the different empowerment dimensions. It aims to activate and mobilise people and sites to regain control, rights, and aid them in the process of social reintegration. Most of all it aims to inspire and create permanent change for a more just and inclusive city and society.

Concepts: social justice, design justice, empowerment

Julita Borys

[Fig. 57] *Axonometry (background) and image of the Design (top-right) made by the author. No scale.*
Source: Borys, 2021.





[Fig. 58] *Urban implantation (left), system assemblage scheme (right) and Section of the Design (bottom) made by the author. No scale.*
Source: Borys, 2021.

Conclusions

05

Several lessons can be drawn from our experiences until now, most importantly CEADL can allow designers to become agents of change. Moreover, it can also alter how architectural design knowledge can be taught and learned in and through engaged practices.

Conclusions

05

[Fig. 59] *SMH Design Studio 17'-18'*
Source: Alt_Shift* Archive

CEADL AS A PLATFORM FOR URBAN COLLABORATION / CO-CREATION

The experiences described above demonstrate how CEADL courses can function as a platform for urban collaboration / co-creation. Acting as laboratories for 'reflection-in-action', they offer the project partners space and time to, together, take a step back, look at their project through a new set of eyes, make links to theory and learn from each other.

In this context, the theoretical framework, running like a red thread through the CEADL course, offered support for the students and fuelled discussions and critical reflection amongst all participants.

CEADL AS CRITICAL SPATIAL PRACTICE *

The CEADL approach also allowed us to combine experiential learning with outreach-based community work and different forms of critical spatial practice.

During the co-teaching and co-creation sessions, everyone indeed took on different roles, constantly transgressing the social and the spatial boundaries between the public and the private[32] and exploiting the productive encounters between different disciplines. As a result, the CEADL approach triggered everyone to rethink and redefine our respective fields' established protocols and codes of conduct.

32. Rendell, 2006.

* **Critical Spatial Practice** is a notion forwarded independently by Rendell (2006) and Miessen (2010; 2017), which can broadly be described as a method for critical design, transforming and reinventing the existing normative architectural discourses and frameworks through practice.

According to Miessen, critical spatial practice involves crossbenching - as a far-reaching mode of collaboration, blurring disciplinary boundaries and inviting other societal actors, who previously would have been considered as non-professional outsiders, into spatial design processes.

Critical spatial practice pushes all involved actors to 'turn off the autopilot', leave the boundaries of what is known, and critically rethink the established protocols and codes of conduct of their respective fields (Pak et al., 2019).

[Fig. 60] *Students engagement with other actors during SMH Design Studio 17'- 18'*
Source: Alt_Shift* Archive

“

During our studies we learn how to design a space, how to construct a stable building and many other things. But unfortunately, we rarely tackle the reality and the difficult role of being a social architect, someone who cares for the future inhabitants, works with them in a participatory process and finds solutions, again and again, to face the economic reality. I was personally challenged by this project. I'm convinced we need to search for another model, a new model. We need to assure that architectural services are affordable as the ones who really need us, cannot afford us today.

April 2020

| STUDENTS |

For the **students**, working together with civic organisations and vulnerable end-users made them question their own reference framework and triggered them to think about their future self.

This course changed the way I think about the future, not only about my role as an architect, but about my role in life in general.

June 2018

At the beginning of the studio, we all had a specific idea of what this project should be. After a little chat with the future inhabitants and NPO's we quickly understood that those ideas came from our own perspectives but not from the actual reality.

February 2019

As architects, we design space and sometimes forget to imagine how people will actually live in it. This question is critical when we start a new kind of housing project for people who have not lived in their own place for a long time. We have to do more than think about it, and we have to plan it, with them. It was a completely new task for us. We understood how difficult it was for them to take responsibility and see themselves in the future.

April 2020

”

C'était un petit repas convivial avec les responsables du projet, les futurs habitants et les étudiants. Après une journée d'activités on avait fait un petit barbecue sur un toit. C'était très, très, très agréable.
On a commencé à faire des tr
pour l'unité commune. C'est à
une pièce où on peut se voir t
ensemble plutôt que dans nos
petits chalets. On a aménagé
On a commencé à forer...
Bon, voilà. On va dire que cela
était... le début du projet.

[Fig. 61] *SMH on-site exhibition summer 2021.*
Source: Alt_Shift* Archive

We worked ... we made furniture. We had a workshop where we learned to use the tools. It was for the team. For me, what interested me was to pass on our knowledge - as professionals - to people who had never worked with tools, like jigsaws. To help them to learn know how to calculate, to cut....

June 2021

I also became an instructor at Atelier Groot Eiland during the SMH period. That also taught me a lot, especially about sharing technical insight. I was educated to be a carpenter and not an instructor, but I was able to establish that transferring technical knowledge is something that suits me very well.

April 2020

Now I can design my own interior. I can put a lot of ideas in it. I know what I want, I can help others to get their idea clear and show them how they should approach it.

April 2020

| COMMUNITY |

For the **community**, we found that participating in the courses, on the one hand, contributed to helping the vulnerable end-users to (re)discover their talents, share their knowledge and expertise, and feel heard and valued.

Also discovering one's own capacity to think technically and practically was interesting. I notice that architects, for example, often come up with good ideas, but that it is also good that someone with more technical insight then asks: how do you want to apply that in practice? And that is how everyone grows closer to one another and comes up with new insights.

April 2020

The project empowers us. We become a little independent. Well, we participate in things. Because when they decide certain things, we talk about it, we have meetings. (..) We can say that we are part of the project. And so, it's not just that Samenlevingsopbouw takes care of us and we are there."

April 2020

Yes, I think that is important yes, to learn something new. (...) Carpentry... I even made my own chair. And yes, I couldn't do that before. (...) I also send photos to friends and family. They then say: 'Well done!' and 'I didn't know you were so handy.

June 2021

[Fig. 62] *SMH Elective 1 (2016-2017)*
Source: Alt_Shift* Archive

“

Personally, I am also very interested in the architectural and aesthetic aspects, but also in aspects such as sustainability, comfort, off-grid solutions. They all come together in this project. I've already learned a lot by being closely involved in it. It has also changed my view on housing.

(CAW director, April 2020)

| ORGANIZATIONS |

For the **civil society organizations** the effects were that they acquired new skills, acted, and realized something tangible, and developed a networked critical spatial practice in collaboration with all the other involved parties.

The students often provide a new perspective and sometimes question the evidence because they miss the point completely. But this can also help us to look at our own project with new eyes. What I also find very interesting is to gain insight in the theoretical frameworks you are providing to the students and then also see the (more or less) practical application of those.

July 2021

In this project, in a certain way and at times everyone becomes an architect, a researcher, a community worker, a participant... We all learn an awful lot.

(social worker at SAAMO, April 2020)

”

| TUTORS |

Finally, as **tutors**, we, too, were impacted by the CEADL approach. While planning and organizing the CEADL courses, we were challenged to as described by Markus Miessen**[33]** *"get out of the comfortable boundaries of traditional expertise in architecture, towards the unknown, the intentional and skillful mastering of incompetence in the ocean of practices"*. Organizing and stimulating knowledge exchange and knowledge production amongst the participants required finding innovative methods and tools for moving the university into the real world and vice versa. This included redefining roles and re-staging relationships, and activating the networks of the involved core, relevant and peripheral actors to develop a joint collaborative practice as a learning environment**[34]**. As a result, we were triggered to critically rethink the conventional learner and teacher roles and re-frame our own educational practice. The long-lasting outcome is that we started up two new 'official' service-learning courses at our faculty and officially re-framed another existing course to fit the service-learning approach.

33. Miessen, 2017
34. Pak et al., 2019

[Fig. 63] *Burak Pak teaching the SMH Dissecting the Building Elective (2018-2019).*
Source: Alt_Shift* Archive.

[Fig. 64] *Aurelie De Smet teaching the Altering Practices for urban Inclusion Elective (2019-2020)*
Source: Alt_Shift* Archive.

CEADL AS A 'MEANDERING' LEARNING ENVIRONMENT

The 'hacking' of regular courses enabled us to inform and include our colleagues, as well as a wide range of students, in the Alt_Shift* groups' research. This allowed us to build upon the knowledge and expertise of the various (sub)disciplines at the Faculty of Architecture. As such, we managed to, at the same time, advance the projects at hand while also providing a challenging, trans-disciplinary learning environment for the students.

The successful output of the students - recognized by future inhabitants, external experts, social guiders, neighbourhood residents, and the international jury members - proved that CEADL provided students with a broad range of skills needed to situate their creative thinking within complex, real-world contexts, enabling them to shape these as inclusive and sustainable environments.

As a result, the students experienced not only academic and professional but also personal growth.

CEADL AS TRANSITION DESIGN

The examples of the course outputs showcased in this book illustrate how the employed TD approach allowed the students and other project partners to take time and transitions into consideration and design with time in mind. As a result, CEADL helped to counter the recurrently prevailing 'There Is No Alternative'-discourse, by demonstrating that 'An Alternative is Possible.' This allows participants to move from thinking about 'the world as it is' to thinking about 'the world as it can be.'

[Fig. 65] *SMH Design Studio & Dissecting the Building Elective evaluation with students (2019)*
Source: Alt_Shift* Archive

CHALLENGES

However, as this was an unprecedented undertaking at our faculty, involving an innovative project, we also faced several challenges in the context of developing and implementing CEADL in the case of SMH, such as:

- The need to search for a proper balancing between 'service' and the 'learning' activities,
- The great deal of energy that had to be put in aligning the rhythm of academia with the rhythm of the real world and the rhythm of everyday life,
- The time needed for developing a 'common language' amongst all participants
- And financial and legal issues related to, for example, getting offers for buying workshop materials, dealing with insurances in the context of off-campus building activities, and making clear arrangements about the intellectual property of the co-created results.

[Fig. 66] *Image of Master student work evoking 'An Alternative is Possible'.*
Source: Ghotbi, 2021.

[Fig. 67] *Design Studio crit with future inhabitants and Social Workers*
Source: Alt_Shift* Archive

GENERAL CONCLUSION & FUTURE PERSPECTIVE

Our experiences , documented in this volume, demonstrate how, as a prefigurative practice, CEADL can allow spatial designers to become agents of change. Moreover, they also show how CEADL alters how architectural design knowledge can be taught and learned in and through engaged practices.

As a result, we believe, CEADL is a valuable approach that should be developed further through the establishment of a structural-service learning track and support for all faculty students and staff.

The following tracks are essential for the improvement of CEADL:

- Co-creating novel frameworks for (self-)reflection and evaluation of SL initiatives;
- Developing advanced methods and tools for knowledge transfer between the different involved stakeholders and between the different initiatives;
- Making links and setting-up collaboration with other faculties;
- Further developing CEADL courses (including a SL PhD-track);
- Making a systematic study of the varied remote/ alternative SL learning methods and tools developed for architectural learning during and before the COVID-19 pandemic;
- Researching funding opportunities for further developing and expanding the impact of CEADL;
- Facilitating intra- and inter institutional reflections on local, official and informal service-learning activities.

REFERENCES

Camillus, J. (2008). Strategy as a Wicked Problem. In: Harvard Business Review [Online]. Available at: hbr.org/2008/05/strategy-as-a-wicked-problem [accessed 13 November 2021]

De Smet, A. (2013). The role of temporary use in urban (re)development: examples from Brussels. [Pdf]. Brussels Studies General collection, no 72. Online since 12 November 2013. Available at: http://brussels.revues.org/1196 [accessed: 02 February 2022]

De Smet, A., Pak, B. (sup.), Schoonjans, Y. (cosup.) (2022). Increasing socio-spatial resilience through temporary appropriation of urban waiting spaces for housing: a Participatory Action Research on the Solidary Mobile Housing project in Brussels. PhD thesis, KU Leuven Faculty of Architecture

Fry, T. (2009). Design Futuring, Sustainability, Ethics and New Practice. Berg Publishers

Irwin, T., Kossoff, G., Tonkinwise, C. & Scupelli, P. (2015). Transition Design 2015, A new area of design research, practice and study that proposes design-led societal transition toward more sustainable futures [Pdf]. Available at: design.cmu.edu/sites/default/files/Transition_Design_Monograph_final.pdf [accessed 02 February 2022]

Kaye, C. B. (2010). The complete guide to service-learning: Proven, practical ways to engage students in civic responsibility, academic curriculum, and social action. Minneapolis, MN: Free Spirit Publishing.

KU Leuven Service-learning (2021). What is Service-learning [Online]. Available at: https://www.kuleuven.be/english/education/sl/whatisservicelearning [accessed 28 October 2021]

Lake, V. E. & Jones, I. (2012). Service-learning in the PreK–3 classroom: The what, why, and how-to guide for every teacher. Minneapolis, MN: Free Spirit Publishing.

Miessen, M. (2017) Crossbenching: Towards a proactive mode of participation as a Critical Spatial Practice. London: Centre for Research Architecture Goldsmiths College University of London

Oosterlynck, S., Loopmans, M., Schuermans, N., Vandenabeele, J. & Zemni, S. (2016). Putting flesh to the bone: Looking for solidarity in diversity, here and now. In: Ethnic and Racial Studies, 08 April 2016, Vol.39(5), pp.764-782

Paidakaki, A. & Moulaert, F. (2017). Does the post-disaster resilient city really exist? A critical analysis of the heterogeneous transformative capacities of housing reconstruction "resilience cells". In: International Journal of Disaster Resilience in the Built Environment, Vol. 8 No. 3, 2017, pp. 275-291

Paidakaki, A. & Moulaert, F. (2018) Disaster Resilience into Which Direction(s)? Competing Discursive and Material Practices in Post-Katrina New Orleans. In: Housing, Theory and Society, 35:4, pp. 432-454

Pak, B. (2016). ICT-enabled bottom-up architectural design. In: International Journal of Architectural Research: ArchNet-IJAR, vol. 10, no. 1, pp. 26-40

Pak, B., De Smet, A. & Schoonjans, Y. (2019). Solidary Mobile Housing Live Project. In: Boie, G., Boutsen, D, Fens, R., De Maeyer, G., Houttekier, B., Schamelhout, J. (Eds). WTC Tower Teachings, reports from one and a half years of nomadic architecture education in Brussels. Brussel: KU Leuven, Faculty of Architecture

Petrescu, D. (2007). Altering Practices: Feminist Politics and Poetics of Space. Routledge

Quittelier, B. & Bertrand, F. (2018). Telling van dak- en thuislozen in het Brussels Hoofdstedelijk Gewest, Vijfde editie, 5 november 2018 [Pdf]. Available at: https://www.lastrada.brussels/portail/images/LAS3220_Denombrement2018_NL_2_BD.pdf [accessed 13 February 2020]

Rendell, J. (2006). Art and Architecture: A Place Between. London: Tauris

Rendell, J. (2008). Critical Spatial Practice. In: Nielsen, S. & Andersen, C. B., Art Incorporated. Copenhagen: Kunstmuseet Koge Skitsesamling

Romero, R. N. H. & Pak, B. (2021). Understanding Design Justice in a Bottom-up Housing case through Digital Actor-Network Mapping. Proceedings of the 39th International Hybrid Conference on Education and Research in Computer Aided Architectural Design in Europe, vol. 1, pp. 131-140

Salama, A. M. (2015). Spatial Design Education: New Directions for Pedagogy in Architecture and Beyond. Ashgate

Storey, K. (2016). Humantific.com [Online]. Available at: medium.com/@kate.r.storey/humantific-com-ec1d52bbf3f3 [accessed 02 February 2022]

Strand, K. J., Cutforth, N., Stoecker, R., Marullo, S. & Donohue, P. (2003). Community-based research and higher education: principles and practices. San Francisco: Jossey-Bass

Turner J. & Fichter, R. (1972). Freedom to Build, dweller control of the housing process. New York: Macmillan

UN, (2020). COVID-19, Inequalities and Building Back Better: Policy brief by the HLCP Inequalities Task Team. Available at: <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/10/HLCP-policy-brief-on-COVID-19-inequalities-and-building-back-better-1.pdf> Access 03.10.2022.

Master Studio Dissertations:

Alaieshahmiri, S. (2021). Responsive Mobile Housing: Changing in Response to Change. Master Dissertaion, Brussels: KU Leuven Faculty of Architecture.

Borys, J. (2021). Incremental Mobility for Waiting Space Activation. Master Dissertation. Brussels: KU Leuven Faculty of Architecture.

Claessens, J. (2021). Alleviating youth houselessness by re-using the vacant as temporary housing. Master Dissertaion, Brussels: KU Leuven Faculty of Architecture.

Esfahani, I. Y. (2021). Discrete Architecture for Solidary Mobile Housing, Master Dissertation, Brussels: KU Leuven Faculty of Architecture.

Ghotbi, M. (2021). A vision for the future of the Solidary Mobile Housing Production Process. Master Dissertation. Brussels: KU Leuven Faculty of Architecture.

Iberdemaj, A. (2021). Collective Living: A Proposal for Integrated Temporary Housing, Master Dissertation, Brussels: KU Leuven Faculty of Architecture.

Ozturk, Z. (2021). Mobile and Performative Collective Spaces for Transitional Co-creation. Master Dissertaion, Brussels: KU Leuven Faculty of Architecture.

Silveira Breder Rocha, V. (2021). The Autonomous City: Possible tangencies of an alternative [right to the] city and affordable mobile housing. Master Dissertation, Brussels: KU Leuven Faculty of Architecture.

Vasudevan, M. (2021). Urban Waiting Spaces as Spaces of Solidarity. Master Dissertation, Brussels: KU Leuven Faculty of Architecture.

Zarei, K (2021). Framework for Civic Production of Mobile Housing. Master Dissertation, Brussels: KU Leuven Faculty of Architecture.